

State of California  
The Resources Agency

DEPARTMENT OF WATER RESOURCES  
Division of Operations and Maintenance

# STATE WATER PROJECT OPERATIONS DATA

For the month of:  
**January 2002**

**Gray Davis**  
Governor  
State of California

**Mary D. Nichols**  
Secretary for Resources  
The Resources Agency

**Thomas M. Hannigan**  
Director  
Department of Water Resource

State of California  
**GRAY DAVIS, Governor**

The Resources Agency  
**MARY D. NICHOLS, Secretary for Resources**

Department of Water Resources  
**THOMAS M. HANNIGAN, Director**

Department of Water Resources  
**STEVE MACAULAY, Chief Deputy Director**

RAY HART  
Deputy Director

JONAS M. MINTON  
Deputy Director

#### DIVISION OF OPERATIONS AND MAINTENANCE

Stephen L. Kashiwada.....Chief, Division of Operations and Maintenance  
Ralph Torres.....Assistant to the Division Chief

This report was prepared under the direction of

Carl Torgersen .....Chief, Operations Control Office  
Curtis Creel .....Chief, Operations Planning Branch

By the  
Operations Records and Reports Section

Guy Masier .....Section Chief  
Michael Nolasco .....Water Resources Engineering Associate (Spec.)  
Warren Dibben .....Water Resources Technician II

The organization shown above represents staff and positions relevant to this report as of publication date on July 22, 2002. It is the department's policy to not show staff in "Acting" or "Temporary" positions.

## Table of Contents

	Page
Organization Page.....	ii
Table of Contents.....	iii
Monthly Highlights .....	1
 <b>Oroville Field Division Water Operations</b> 	
<b>Table</b>	<b>Page</b>
1 Antelope Lake, Daily Operation .....	2
2 Frenchman Lake, Daily Operation .....	3
3 Lake Davis, Daily Operation .....	4
4 Lake Oroville, Daily Operation .....	5
5 Thermalito Forebay, Including Diversion Pool and Power Canal, Daily Operation .....	6
6 Thermalito Afterbay, Daily Operation.....	7
7 Oroville-Thermalito Complex, Water Temperature Data .....	8
 <b>Delta Field Division Water Operations</b> 	
8 Aqueduct Operation, Delta Field Division .....	9
9 Delta Field Division Plant Data .....	10
10 Clifton Court Forebay, Daily Operation of Gates.....	11
11 Governor Edmund G. Brown California Aqueduct, Delta Field Division, Monthly Deliveries .....	12
12 South Bay Aqueduct, Delta Field Division, Monthly Deliveries.....	13
13 Lake Del Valle, Daily Operation.....	14
 <b>San Luis Field Division Water Operations</b> 	
14 Consolidated State-Federal O'Neill Forebay, Daily Operations.....	15
15 Consolidated State-Federal San Luis Reservoir, Daily Operations .....	16
16 San Luis Field Division Plant Data.....	17
17 Consolidated State-Federal Los Banos Reservoir, Daily Operations .....	18
18 Consolidated State-Federal Little Panoche Reservoir, Daily Operations.....	19
19 Governor Edmund G. Brown California Aqueduct, San Luis Field Division, Monthly Deliveries .....	20
20 Consolidated State-Federal San Luis Canal, Daily Operations .....	22
 <b>San Joaquin Field Division Water Operations</b> 	
21 San Joaquin Field Division Plant Data.....	23
22 Governor Edmund G. Brown California Aqueduct, San Joaquin Field Division, Monthly Deliveries .....	24

Table		Page
23	Governor Edmund G. Brown California Aqueduct, San Joaquin Field Division, Monthly Deliveries (Coastal Branch) .....	27
	<b>Southern Field Division Water Operations</b>	
24	Southern Field Division Plant Data .....	28
25	Pyramid Lake, Daily Operation.....	29
26	Elderberry Forebay, Daily Operation.....	30
27	Castaic Lake, Daily Operation .....	31
28	Governor Edmund G. Brown California Aqueduct, Southern Field Division,	
	Monthly Deliveries (West Branch).....	32
29	Silverwood Lake, Daily Operation.....	33
30	Lake Perris, Daily Operation.....	34
31	Governor Edmund G. Brown California Aqueduct, Southern Field Division,	
	Monthly Deliveries (East Branch).....	35
	<b>Water Quality Operations</b>	
32	Water Quality at Selected SWP Locations .....	37
33	Water Quality at Selected Delta Stations.....	38
34	Pesticides, Herbicides, and Other Organic Substances Detected in the SWP.....	39
	<b>Energy Operations</b>	
35	Oroville and Delta Field Divisions Energy Data.....	40
36	San Luis Field Division Energy Data.....	41
37	San Joaquin Field Division Pumping Plant Energy Load Data .....	42
38	Southern Field Division Energy Data .....	43

## **MONTHLY HIGHLIGHTS**

The following highlights are activities or actions that impacted State Water Project operations during the month of January 2002.

Statewide precipitation was at about 100 percent of average for the 2001-2002 water year through January 31. Precipitation percentages are used in this report to express historical and regional comparisons. Additional and more specific information is available via the internet at: [http://cdec.water.ca.gov/snow\\_rain.html](http://cdec.water.ca.gov/snow_rain.html).

Reservoir storage was about 90 percent of normal. End of month total storage in major SWP reservoirs was about 3.48 MAF, compared with about 2.9 MAF at this time in 2001. End of month storage at Lake Oroville was about 1.93 MAF as compared to 1.74 MAF last year. The State's share of San Luis Reservoir storage was about 931 TAF, as compared with 557 TAF at this time last year. End of month combined storage in our southern reservoirs was about 622 TAF, compared with about 557 TAF at this time last year.

Through January, SWP water deliveries for 2002 were about 200 TAF. This is a combination of project, transfer, and exchange waters. This is 42 TAF more than delivered during the same period in 2001.

Even with near average precipitation, SWP allocations were still relatively low at 45 percent due to low Project carryover storage and conservative runoff forecasts for the remainder of the year, both influenced by the dry conditions in the previous water year.

SWP diversions into Clifton Court Forebay were limited to 1,500 cfs from January 5 through January 9 to address adult delta smelt salvage concerns. EWA water was earmarked to insure that there would be no loss of water for the SWP. Excess conditions in the Delta lasted all month.

Edmonston Pumping Plant was limited to 2,254 cfs for a scheduled outage on West Wing discharge valves beginning January 2, 2002. Units 2, 4, 6, 8, 10, 12, and 14 were out of service to repair discharge valve seats, minimizing seat leakage. During the outage, Edmonston plant continued to make deliveries to the East and West Branches of the SWP with no curtailment in State Water Contractor deliveries.

**Table 1. Antelope Lake**

Daily Operation  
(in acre-feet except as noted)

Capacity: 22,566 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow 1/	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right				
Dec 31	4992.34	14,594								
1	4992.49	14,703	109	5	0	0	0			
2	4992.56	14,753	50	5	0	0	0			
3	4992.59	14,768	15	5	0	0	0			
4	4992.65	14,818	50	5	0	0	0			
5	4992.75	14,891	73	5	0	0	0			
6	4992.83	14,949	58	5	0	0	0			
7	4992.89	14,993	44	5	0	0	0			
8	4992.94	15,030	37	5	0	0	0			
9	4992.98	15,059	29	5	0	0	0			
10	4993.01	15,081	22	5	0	0	0			
11	4993.05	15,110	29	5	0	0	0			
12	4993.06	15,118	8	5	0	0	0			
13	4993.08	15,132	14	5	0	0	0			
14	4993.08	15,132	0	5	0	0	0			
15	4993.09	15,140	8	5	0	0	0			
16	4993.10	15,147	7	5	0	0	0			
17	4993.11	15,155	8	5	0	0	0			
18	4993.11	15,155	0	5	0	0	0			
19	4993.12	15,162	7	5	0	0	0			
20	4993.13	15,169	7	5	0	0	0			
21	4993.18	15,206	37	5	0	0	0			
22	4993.18	15,206	0	5	0	0	0			
23	4993.19	15,213	7	5	0	0	0			
24	4993.19	15,213	0	5	0	0	0			
25	4993.21	15,221	8	5	0	0	0			
26	4993.29	15,287	66	5	0	0	0			
27	4993.30	15,295	8	5	0	0	0			
28	4993.30	15,295	0	5	0	0	0			
29	4993.32	15,309	14	5	0	0	0			
30	4993.31	15,302	-7	5	0	0	0			
31	4993.33	15,317	15	5	0	0	0			
Total cfs-days			---	155	0	0	0	26	181	
Total ac-ft			723	307	0	0	0	51	358	
1/ Values not available on a daily basis.										

**Table 2. Frenchman Lake**

## Daily Operation

(in acre-feet except as noted)

Capacity: 55,477 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow 1/	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right				
Dec 31	5568.07	29,285								
1	5568.06	29,274	-11	2	0	0	0			
2	5568.11	29,327	53	2	0	0	0			
3	5568.16	29,380	53	2	0	0	0			
4	5568.15	29,370	-10	2	0	0	0			
5	5568.19	29,412	42	2	0	0	0			
6	5568.22	29,444	32	2	0	0	0			
7	5568.26	29,486	42	2	0	0	0			
8	5568.32	29,550	64	2	0	0	0			
9	5568.36	29,593	43	2	0	0	0			
10	5568.37	29,603	10	2	0	0	0			
11	5568.41	29,646	43	2	0	0	0			
12	5568.46	29,699	53	2	0	0	0			
13	5568.49	29,731	32	2	0	0	0			
14	5568.47	29,710	-21	2	0	0	0			
15	5568.48	29,721	11	2	0	0	0			
16	5568.48	29,721	0	2	0	0	0			
17	5568.52	29,763	42	2	0	0	0			
18	5568.53	29,774	11	2	0	0	0			
19	5568.50	29,742	-32	2	0	0	0			
20	5568.50	29,742	0	2	0	0	0			
21	5568.53	29,744	2	2	0	0	0			
22	5568.52	29,763	19	2	0	0	0			
23	5568.56	29,806	43	2	0	0	0			
24	5568.55	29,795	-11	2	0	0	0			
25	5568.52	29,763	-32	2	0	0	0			
26	5568.63	29,881	118	2	0	0	0			
27	5568.65	29,903	22	2	0	0	0			
28	5568.65	29,903	0	2	0	0	0			
29	5568.66	29,913	10	2	0	0	0			
30	5568.68	29,935	22	2	0	0	0			
31	5568.69	29,945	10	2	0	0	0			
Total cfs-days				- - -	62	0	0	0	38	
Total ac-ft				660	123	0	0	0	75	
									100	
									433	
									858	

1/ Values not available on a daily basis.

**Table 3. Lake Davis**

Daily Operation

(in acre-feet except as noted)

Capacity: 84,371 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow 1/	
				Regulated Release			Spill	Estimated Evaporation And Seepage 1/		
				Stream-flow Maint.	Water Supply Contract	Water Right				
Dec 31	5763.66	45,380								
1	5763.67	45,409	29	10	0	0	0			
2	5763.71	45,523	114	10	0	0	0			
3	5763.72	45,551	28	10	0	0	0			
4	5763.72	45,551	0	10	0	0	0			
5	5763.75	45,637	86	10	0	0	0			
6	5763.78	45,723	86	10	0	0	0			
7	5763.80	45,780	57	10	0	0	0			
8	5763.83	45,865	85	10	0	0	0			
9	5763.85	45,923	58	10	0	0	0			
10	5763.85	45,923	0	10	0	0	0			
11	5763.86	45,951	28	10	0	0	0			
12	5763.88	46,009	58	10	0	0	0			
13	5763.88	46,009	0	10	0	0	0			
14	5763.88	46,009	0	10	0	0	0			
15	5763.88	46,009	0	10	0	0	0			
16	5763.86	45,951	-58	10	0	0	0			
17	5763.86	45,951	0	10	0	0	0			
18	5763.86	45,951	0	10	0	0	0			
19	5763.85	45,923	-28	10	0	0	0			
20	5763.84	45,894	-29	10	0	0	0			
21	5763.86	45,951	57	10	0	0	0			
22	5763.86	45,951	0	10	0	0	0			
23	5763.84	45,894	-57	10	0	0	0			
24	5763.84	45,894	0	10	0	0	0			
25	5763.83	45,865	-29	10	0	0	0			
26	5763.89	46,037	172	10	0	0	0			
27	5763.89	46,037	0	10	0	0	0			
28	5763.89	46,037	0	10	0	0	0			
29	5763.89	46,037	0	10	0	0	0			
30	5763.89	46,037	0	10	0	0	0			
31	5763.89	46,037	0	10	0	0	0			
Total cfs-days			- - -	310	0	0	0	100	410	742
Total ac-ft			657	615	0	0	0	199	814	1,471

1/ Values not available on a daily basis.

**Table 4. Lake Oroville**

Daily Operation

(in acre-feet except as noted)

Capacity: 3,537,580 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow					Inflow		
				Hyatt Powerplant Generation 1/	Palermo Canal	Evaporation 2/	Spill	Total Outflow	Hyatt Powerplant Pumpback	Computed Inflow 3/	
Dec 31	741.09	1,595,882	26,358 5,903 7,004 7,342 0 2 0 29 0 6 18 0 0 12 36 0 18 0 6 31 0 0 8 3,893 0 0 4,027 1,182 0 0 218 0 0 6,813 0 0 5,508 0 0 4,758 0 0 5,212 0 0 4,247 0 0 3,161 0 0 2,132 0 0 4,828 0 0 3,303 0 0 2,970 0 0 3,647 0 0 3,281 0 0 1,408 0 0 1,755 0 0 2,398 0 0 4,181 0 0 3,374 0 0 2,444 0 0	0	2	17	0	19	6,871	19,506	
1	744.00	1,622,240		26,358	5,903	2	39	0	5,944	0	38,513
2	747.55	1,654,809		32,569	7,004	2	0	0	7,006	0	35,074
3	750.57	1,682,877		28,068	7,342	2	40	0	7,384	1,465	21,772
4	752.26	1,698,730		15,853	0	2	29	0	31	3,141	16,451
5	754.33	1,718,291		19,561	0	2	6	0	8	5,776	30,365
6	758.11	1,754,424		36,133	0	2	18	0	3,893	1,390	24,550
7	760.39	1,776,471		22,047	3,873	2	0	0	4,027	1,182	19,203
8	762.07	1,792,829		16,358	4,027	0	0	0	0	0	15,678
9	763.21	1,803,990		11,161	4,505	0	12	0	4,517	0	15,678
10	764.08	1,812,542		8,552	5,307	0	36	0	5,343	0	13,895
11	764.81	1,819,740		7,198	5,259	0	18	0	5,277	0	12,475
12	765.83	1,829,832		10,092	788	0	18	0	806	0	10,898
13	767.11	1,842,554		12,722	212	0	6	0	218	3,775	9,165
14	767.46	1,846,043		3,489	6,782	0	31	0	6,813	0	10,302
15	767.75	1,848,938		2,895	5,483	0	25	0	5,508	0	8,403
16	768.05	1,851,937		2,999	4,678	0	80	0	4,758	0	7,757
17	768.31	1,854,538		2,601	5,163	0	49	0	5,212	0	7,813
18	768.75	1,858,946		4,408	4,204	0	43	0	4,247	0	8,655
19	769.21	1,863,563		4,617	3,124	0	37	0	3,161	0	7,778
20	769.68	1,868,288		4,725	2,076	0	56	0	2,132	0	6,857
21	769.94	1,870,906		2,618	4,778	0	50	0	4,828	0	7,446
22	770.39	1,875,446		4,540	3,291	0	12	0	3,303	0	7,843
23	770.78	1,879,384		3,938	2,901	0	69	0	2,970	0	6,908
24	771.10	1,882,620		3,236	3,585	0	62	0	3,647	0	6,883
25	771.39	1,885,555		2,935	3,275	0	6	0	3,281	0	6,216
26	772.27	1,894,484		8,929	1,396	0	12	0	1,408	0	10,337
27	772.95	1,901,405		6,921	1,755	0	0	0	1,755	0	8,676
28	773.43	1,906,301		4,896	2,379	0	19	0	2,398	0	7,294
29	773.73	1,909,366		3,065	4,118	0	63	0	4,181	0	7,246
30	773.98	1,911,922		2,556	3,330	0	44	0	3,374	0	5,930
31	774.37	1,915,916		3,994	2,394	0	50	0	2,444	0	6,438
<b>Total</b>		320,034	108,932	14	947	0	109,893	23,600	406,327		

1/ Includes bypass flows

2/ Evaporation will be zero for days when there is precipitation or heavy overcast.

3/ Does not include pumpback.

**Table 5. Thermalito Forebay  
Including Diversion Pool and Power Canal**

Capacity: 25,120 ac-ft

Daily Operation  
(in acre-feet except as noted)

**January 2002**

Date	Storage 1/	Storage Change	Inflow			Outflow					Losses (-) And Gains (+)
			Lake Oroville Releases 2/	Kelly Ridge Generation	Thermalito Pumping- Generating Plant Pumpback	Thermalito Pumping- Generating Plant Generation 3/	Butte County	Thermalito Irrigation District	Releases To River 4/	Hyatt Powerplant Pumpback	
Dec 31	24,194										
1	23,386	-808	0	507	6,497	92	2	0	1,230	6,871	383
2	23,652	266	5,903	507	29	6,216	2	0	1,261	0	1,306
3	23,797	145	7,004	512	0	6,426	2	0	1,226	0	283
4	24,033	236	7,342	514	1,851	6,838	2	0	1,228	1,465	62
5	23,337	-696	0	507	2,977	0	2	0	1,226	3,141	189
6	23,871	534	0	514	6,464	0	2	0	1,255	5,776	589
7	23,639	-232	3,873	456	1,612	4,031	2	0	1,235	1,390	485
8	24,067	428	4,027	510	1,534	3,413	2	0	1,233	1,182	187
9	24,175	108	4,505	507	0	3,765	2	0	1,243	0	106
10	24,156	-19	5,307	577	0	5,100	2	0	1,245	0	444
11	24,350	194	5,259	526	0	4,271	2	0	1,247	0	-71
12	24,080	-270	788	83	0	0	2	0	1,251	0	112
13	23,695	-385	212	353	4,189	341	2	0	1,251	3,775	230
14	23,697	2	6,782	272	0	5,620	2	0	1,253	0	-177
15	23,823	126	5,483	0	0	4,312	2	0	1,259	0	216
16	23,554	-269	4,678	121	0	3,883	2	0	1,261	0	78
17	23,777	223	5,163	127	0	3,957	2	0	1,265	0	157
18	23,549	-228	4,204	127	0	3,325	2	0	1,263	0	31
19	23,400	-149	3,124	188	0	2,572	2	0	1,267	0	380
20	23,812	412	2,076	472	0	965	2	0	1,267	0	98
21	23,262	-550	4,778	490	0	4,655	2	0	1,265	0	104
22	23,330	68	3,291	524	0	2,515	2	0	1,259	0	29
23	23,501	171	2,901	526	0	2,027	2	0	1,251	0	24
24	23,592	91	3,585	446	0	2,800	2	0	1,247	0	109
25	23,164	-428	3,275	506	0	3,045	2	0	1,247	0	85
26	23,411	247	1,396	512	0	623	2	0	1,247	0	211
27	23,968	557	1,755	508	0	533	3	0	1,237	0	67
28	23,350	-618	2,379	504	0	2,364	3	0	1,237	0	103
29	23,859	509	4,118	512	0	2,923	3	0	1,231	0	36
30	23,545	-314	3,330	506	0	2,982	3	0	1,230	0	65
31	23,257	-288	2,394	512	15	2,021	3	0	1,226	0	41
Total		-937	108,932	12,926	25,168	91,615	67	0	38,643	23,600	5,962

1/ Sum of Thermalito Forebay and Diversion Pool.

2/ Sum of releases from Lake Oroville through Hyatt plant, and spill.

3/ Includes Bypass flows at Thermalito.

4/ The sum of the flows from fish barrier dam and the fish hatchery.

**Table 6. Thermalito Afterbay**

Daily Operation

(in acre-feet except as noted)

Capacity: 57,040 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow					Losses (-) and Gains (+)	Total Releases to River 2/
				Thermalito Pumping-Generating Plant Generation 1/	Sutter Butte Canal	Western Canal Lateral	Richvale Canal	Western Canal	Afterbay River Outlet	Thermalito Pumping-Generating Plant Pumpback		
Dec 31	132.05	39,302	-8,500	92	974	3	333	139	1,154	6,497	508	2,384
1	129.59	30,802	4,267	6,216	988	2	325	109	1,153	29	657	2,414
2	130.86	35,069	3,796	6,426	984	0	317	44	1,160	0	-125	2,386
3	131.93	38,865	2,544	6,838	970	0	329	0	1,153	1,851	9	2,381
4	132.62	41,409	-5,153	0	958	0	333	0	1,159	2,977	274	2,385
5	131.20	36,256	-8,163	0	958	0	333	0	1,159	6,464	751	2,414
6	128.74	28,093	-373	4,031	954	0	361	0	1,159	1,612	-318	2,394
7	128.62	27,720	3,413	962	0	0	401	0	1,162	1,534	-93	2,395
8	128.38	26,981	-739	956	0	0	415	0	1,159	0	-92	2,402
9	128.75	28,124	1,143	5,100	966	0	426	0	1,160	0	-65	2,405
10	129.53	30,607	2,483	4,271	946	0	434	0	1,160	0	-53	2,407
11	130.04	32,285	1,678	0	938	0	432	0	1,162	0	112	2,413
12	129.30	29,865	-2,420	341	944	0	432	0	1,148	4,189	-120	2,399
13	127.16	23,373	-6,492	5,620	948	0	438	0	1,160	0	-165	2,413
14	128.15	26,282	2,909	4,312	946	0	438	0	1,162	0	-266	2,421
15	128.64	27,782	1,500	3,883	954	0	438	0	1,160	0	177	2,421
16	129.12	29,290	1,188	3,957	889	0	436	0	1,150	0	-294	2,415
17	129.49	30,478	3,325	579	0	0	436	0	1,160	0	93	2,423
18	129.87	31,721	331	2,572	436	0	432	0	1,157	0	-216	2,424
19	129.97	32,052	-956	965	438	0	434	0	1,146	0	97	2,413
20	129.68	31,096	3,044	4,655	132	0	127	0	1,153	0	-199	2,418
21	130.59	34,140	1,276	2,515	0	0	0	0	1,162	0	-77	2,421
22	130.96	35,416	2,027	0	0	0	0	0	1,160	0	-203	2,411
23	131.15	36,080	664	0	0	0	0	0	1,158	0	-47	2,405
24	131.60	37,675	1,883	3,045	0	0	0	0	1,166	0	4	2,413
25	132.12	39,558	-475	623	0	0	0	0	1,162	0	64	2,409
26	131.99	39,083	533	0	0	0	0	0	1,158	0	-100	2,395
27	131.79	38,358	1,090	2,364	0	0	0	0	1,157	0	-116	2,395
28	132.09	39,448	1,513	2,923	0	0	0	0	1,160	0	-253	2,388
29	132.50	40,961	1,919	2,982	0	0	0	0	1,153	15	97	2,390
30	133.01	42,880	649	2,021	0	0	0	0	1,160	0	-204	2,379
31	133.18	43,529	0	0	0	0	0	0	1,153	0	74,533	
Total		4,227	91,615	17,820	5	8,050	292	35,890	25,168	-163		

1/ Includes Bypass flows at Thermalito.

2/ The sum of the flows from the fish barrier dam, fish hatchery, and afterbay river outlet.

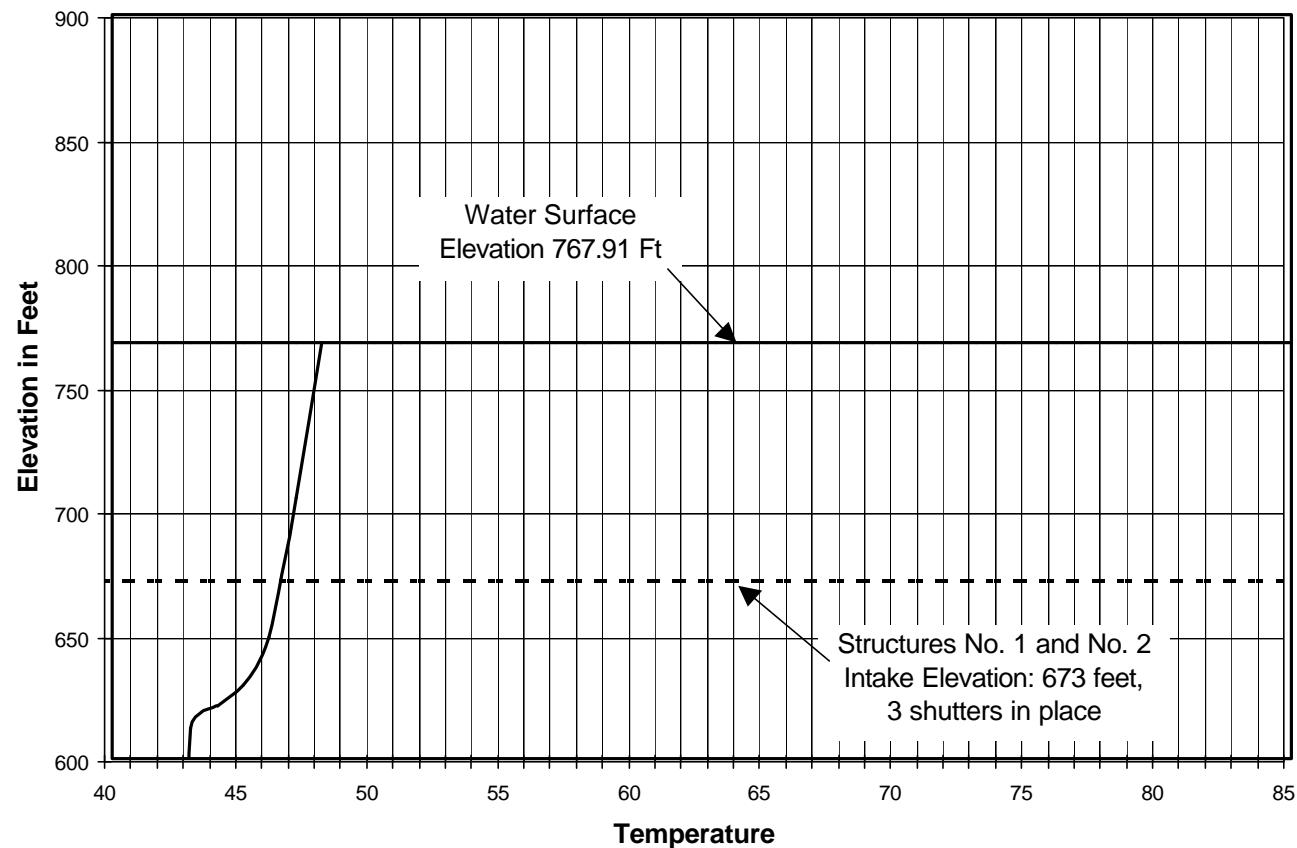
**Table 7. Oroville-Thermalito Complex**

Water Temperature Data

(in degrees Fahrenheit)

**January 2002**

Date	Mean Daily Temperature	
	Thermalito Afterbay Outlet	Fish Hatchery
1	49	51
2	49	51
3	50	50
4	50	49
5	50	49
6	50	50
7	50	50
8	50	50
9	50	49
10	50	48
11	50	48
12	50	48
13	50	48
14	49	48
15	48	48
16	46	49
17	46	49
18	46	49
19	46	49
20	45	48
21	45	48
22	45	48
23	44	47
24	44	47
25	44	47
26	44	47
27	44	47
28	44	47
29	43	46
30	43	46
31	43	46

**Lake Oroville Temperature Profile  
on January 16, 2002**

Note: Water surface elevations on Table 4 are taken at Oroville Dam at midnight and may differ slightly from those shown on this table which are normally taken at mid-day and upstream from Oroville Dam.

**Table 8. North Bay Aqueduct**  
Delta Field Division, Monthly Deliveries

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries					
	Beginning and Ending		Mile			Entitlement		Permit	2001-02 Carryover Special		
	No.	Structure				M & I	Benicia				
1	1	Barker Slough Pumping Plant	0.17	(Into the North Bay Aqueduct)	993	11	389	65	37		
		Travis Surge Tank	8.78								
			8.80	Solano County Water Agency Travis Turnout	63						
			10.54	Solano County Water Agency Fairfield / Vacaville 24"	0						
				Solano County Water Agency Fairfield / Vacaville 42"	0						
			17.00	Solano County Water Agency Central Solano	Stub						
2	3A	Cordelia Forebay	21.23			11	389	65	37		
		Cordelia Pumping Plant & Cordelia Spillway	21.30		911						
3B	2	Napa Pipeline	21.33	Solano County Water Agency Vallejo	76	11	389	65	37		
				Solano County Water Agency Benicia	426						
		Cordelia Surge Tank	23.33								
		Creston Surge Tank Connection	25.65								
			26.95	Napa County Flood Control & WCD American Canyon 2	0						
			27.27	Napa County Flood Control & WCD American Canyon 3	0						
		Napa Terminal Tank	27.58	City of Napa	0						
			27.60	Napa County Flood Control & WCD American Canyon 1	0						

**Table 9. Delta Field Division Plant Data**

(in acre-feet)

Date	North Bay Aqueduct		California Aqueduct		South Bay Aqueduct				January 2002
	Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant			Gravity Flow Through Plant Into Aqueduct
			Total	SWP		Into Lake	Into Aqueduct		
1	40	38	16,173	16,173	0	0	0		99
2	49	45	16,005	16,005	0	0	0		99
3	38	38	15,850	15,850	0	0	0		98
4	46	47	15,541	15,541	0	0	0		101
5	43	44	3,693	3,693	0	0	0		100
6	46	43	3,013	3,013	0	0	0		98
7	45	42	2,933	2,933	0	0	0		100
8	49	50	2,990	2,990	0	0	0		101
9	42	43	3,293	3,293	0	0	0		99
10	37	35	14,797	14,797	0	0	0		100
11	21	17	15,032	15,032	0	0	0		100
12	36	36	14,985	14,985	0	0	0		101
13	21	22	14,959	14,959	0	0	0		99
14	29	25	14,965	14,965	0	0	0		99
15	44	46	14,501	14,501	0	0	0		101
16	42	29	14,775	14,775	0	0	0		100
17	46	40	14,627	14,627	0	0	0		100
18	33	26	14,119	14,119	0	0	0		99
19	17	14	14,360	14,360	0	0	0		99
20	23	22	14,110	14,110	0	0	0		101
21	21	19	14,371	14,371	0	0	0		100
22	22	18	14,434	14,434	0	0	0		97
23	20	18	14,301	14,301	0	0	0		90
24	29	21	14,593	14,593	0	0	0		100
25	21	17	14,373	14,373	0	0	0		100
26	18	16	14,295	14,295	0	0	0		98
27	18	19	14,410	14,410	0	0	0		98
28	23	18	13,441	13,441	0	0	0		98
29	24	24	13,825	13,825	0	0	0		99
30	23	17	14,097	14,097	0	0	0		99
31	27	22	14,156	14,156	0	0	0		95
Total	993	911	397,017	397,017	0	0	0		3,068

**Table 10. Clifton Court Forebay**

Daily Operation of Gates

**January 2002**

Date	Time								Amount of inflow in Acre-Feet
	Opened	Closed	Opened	Closed	Opened	Closed	Opened	Closed	
1	---	1:30	4:30	18:18					16,452
2	0:01	2:15	5:15	18:13					16,285
3	0:01	3:01	6:01	19:16					16,108
4	0:01	6:49	8:05	20:27					16,057
5	0:01	4:41	8:00	10:00					2,962
6	0:01	4:50	13:10	15:05					2,970
7	1:30	5:30	9:25	10:15					2,954
8	1:00	5:15							2,969
9	1:00	4:45							2,970
10	1:05	13:29	16:18	21:17					15,249
11	1:53	14:21	17:01	21:16					15,053
12	2:35	15:13	17:43	21:00					14,856
13	3:14	15:59	18:22	21:15					14,766
14	0:01	0:52	3:52	16:41	19:01	21:50			14,771
15	0:01	1:27	4:27	17:25	19:36	20:07			14,673
16	0:05	2:03	5:04	18:04	20:50	22:30			14,560
17	0:01	2:36	5:36	18:57					14,563
18	0:01	3:11	6:11	19:22	23:00	---			14,570
19	---	3:47	6:47	20:41					14,468
20	0:01	3:30	7:25	21:46	23:31	---			13,572
21	---	9:05	12:37	18:53	21:52	---			14,371
22	---	9:56	13:17	19:55	23:01	---			13,747
23	---	10:55	14:03	20:47	23:47	---			13,699
24	---	12:01	14:49	20:00					14,379
25	0:36	12:57	15:50	20:45					14,373
26	1:21	13:52	16:25	18:00					14,380
27	2:03	14:41	17:17	20:40					14,368
28	2:47	15:30	18:49	21:02					14,364
29	0:01	0:30	3:30	16:17	19:15	22:12	23:55	---	14,362
30	---	1:12	4:12	17:07	19:39	22:11			14,355
31	0:05	1:52	4:52	18:01	20:30	---			14,350
Total inflow for the month in AF:									397,576

**Table 11. Governor Edmund G. Brown California Aqueduct**  
 Delta Field Division, Monthly Deliveries

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries						
	Beginning and Ending					Entitle-ment	USBR	Local	Loan Water	2001-2002 Carryover Special		
	No.	Structure	Mile									
1	Banks Pumping Plant	3.32			397,017							
2A	1	South Bay Pumping Plant	4.49	Bethany Reservoir inlet	0		78					
		Check No. 1	5.95									
	2	Check No. 2	12.01									
	3		12.47	Musco Olive	78							
		Check No. 3	18.29									
	4		22.16	Tracy Golf & Country Club	0							
		Check No. 4	23.99									
	5	Check No. 5	29.73									
	6	Check No. 6	34.24									
	7		35.22	Turlock Fruit Company Inflow	0							
		Check No. 7	39.91									
2B	8		42.46	Oak Flat Water District-A	9		9					
			42.9	Western Hills WD	0							
			43.81	Oak Flat Water District-B	9							
			44.64	Oak Flat Water District-C	0							
		Check No. 8	45.97									
	9		46.18	Oak Flat Water District-D	0		9					
				Oak Flat Totals:	18							
		Check No. 9	51.3				9					
	10	Check No. 10	56.86									
	11	Check No. 11	61.4									
	12		66.14	Veteran's Cemetery	2							
		Check No. 12	66.71		381,169							

**Table 12. South Bay Aqueduct**  
Delta Field Division, Monthly Deliveries

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitle-ment	Carryover Extended	2001-02 Carryover Special	Local	Recre-ation		
	No.	Structure	Mile									
1	1	South Bay Pumping Plant	0.00	(into South Bay Aqueduct)	0							
			3.17	Granite - Vasco Rd. (Temp.)	0							
			3.18	Oakland Scavenger Zone 7	0							
	Check No. 1		3.91									
	2	Check No. 2	5.21									
2	3		7.21	Zone 7 Altamont	0							
		Check No. 3	9.49	Zone 7 Patterson Stored Exchange	0							
				Zone 7 Patterson Project Water	0							
4	4	Check No. 4	10.68									
	5	Check No. 5	12.29									
	6		13.55	Zone 7 Wente #1	0							
			14.16	Zone 7 Wente #2	0							
			14.31	Ising Project Water	0							
		Check No. 6	14.65									
	7		14.78	Zone 7 Arroyo Mocho	0							
		Check No. 7	16.38									
	8	Del Valle Branch Pipeline Junction	16.57	Zone 7 Wente #3	0							
			16.69	Zone 7 Norman Nursery	0							
			16.70	Zone 7 Concannon Project Water	0							
			18.63	(Pumped into Lake Del Valle)	0							
				(Flow into South Bay Aqueduct)	3,068							
5	8	Deliveries through Del Valle Branch Pipeline		Arroyo Valle #1 & #2 Project Water	0							
				Arroyo Valle #1 & #2 Inflow Released	247							
				Lake Del Valle Recreation	3							
				Zone 7 Wente #5	1							
6			19.20	So. Livermore Project	96							
				So. Livermore Inflow Released	760							
				So. Livermore Stored Exchanged	0							
			19.21	Zone 7 - Kalthrof Detjens	0							
7		La Costa Tunnel	22.50	ACWD Vallecitos Project Water	0							
			25.97	City of San Francisco San Antonio	0							
8		Mission Tunnel	28.97	ACWD - Bayside 1 & 2 Project Water: Inflow Released	986							
				Stored Exchange:	762							
9		Santa Clara Pipeline	35.86	S.C.V.W.D. Meter	211							
					0							

**Table 13. Lake Del Valle**

Daily Operation

Capacity: 77,106 ac-ft

**January 2002**

Date	Water Surface Elevation (feet)	Storage	Storage Change	Inflow		Outflow					Precipitation (inches)
				Natural 1/	From South Bay Aqueduct	Arroyo Valle	South Bay Aqueduct	Recreation Deliveries 2/	Evaporation	Total Outflow	
Dec 31	699.81	37,697									
1	699.13	37,235	-462	-346	0	16	98	0	2	116	0.04
2	699.20	37,283	48	163	0	16	98	0	1	115	0.18
3	700.04	37,857	574	690	0	16	98	0	2	116	0.24
4	700.30	38,030	173	292	0	16	101	0	2	119	0.00
5	700.34	38,063	33	151	0	16	100	0	2	118	0.00
6	700.39	38,096	33	147	0	16	98	0	0	114	0.00
7	700.35	38,067	-29	88	0	16	100	0	1	117	0.00
8	700.28	38,022	-45	74	0	16	101	0	2	119	0.00
9	700.26	38,006	-16	99	0	16	98	0	1	115	0.00
10	700.19	37,957	-49	70	0	16	100	0	3	119	0.00
11	700.07	37,876	-81	37	0	16	100	0	2	118	0.00
12	699.98	37,811	-65	56	0	16	101	0	4	121	0.02
13	699.86	37,730	-81	35	0	16	98	0	2	116	0.00
14	699.76	37,661	-69	49	0	16	99	0	3	118	0.00
15	699.66	37,592	-69	50	0	16	101	0	2	119	0.00
16	699.54	37,515	-77	42	0	16	100	0	3	119	0.00
17	699.41	37,422	-93	25	0	16	100	0	2	118	0.00
18	699.33	37,370	-52	64	0	16	98	0	2	116	0.00
19	699.18	37,269	-101	18	0	16	99	0	4	119	0.00
20	699.07	37,197	-72	49	0	16	101	0	4	121	0.00
21	698.92	37,092	-105	15	0	16	100	0	4	120	0.00
22	698.82	37,024	-68	46	0	16	97	0	1	114	0.12
23	698.69	36,936	-88	21	0	16	90	0	3	109	0.00
24	698.56	36,848	-88	31	0	16	100	0	3	119	0.00
25	698.44	36,768	-80	40	0	17	100	0	3	120	0.00
26	698.33	36,697	-71	44	0	17	98	0	0	115	0.08
27	698.24	36,637	-60	56	0	17	98	0	1	116	0.15
28	698.14	36,569	-68	51	0	17	98	0	4	119	0.05
29	698.05	36,506	-63	54	0	17	99	1	0	117	0.19
30	697.88	36,390	-116	5	0	17	99	1	4	121	0.05
31	697.79	36,331	-59	57	0	17	95	1	3	116	0.00
Total			-1,366	2,273	0	503	3,063	3	70	3,639	1.12

1/ Total inflow from stream gaging station above Lang Canyon and accretions/depletions.

2/ To East Bay Regional Park District.

NR=No Records

**Table 14. Consolidated State-Federal O'Neill Forebay**

Daily Operations

January 2002

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Date	Water Surface Elevation (in feet)	Storage (ac-ft)	Storage Change	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)	
				Pump In 1/	O'Neill Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	California Aqueduct	O'Neill Pumping Generating Plant (Generation)	Gianelli Pumping Generating Plant (Pumped)	Dos Amigos Pumping Plant	Deliveries 2/		
Dec 31	223.04	51,153											
1	222.45	49,580	-1,573	0	3,737	0	7,648	0	9,661	2,577	2	62	
2	223.98	53,673	4,093	0	3,732	0	7,983	0	8,581	1,552	2	484	
3	224.54	55,184	1,511	0	3,749	0	7,578	0	8,845	1,761	2	43	
4	223.91	53,484	-1,700	0	3,731	0	7,408	0	10,597	1,375	2	-22	
5	221.97	48,308	-5,176	0	3,787	0	2,307	0	6,894	1,808	2	0	
6	220.48	44,400	-3,908	0	3,853	0	1,763	0	4,848	2,441	2	-295	
7	220.37	44,114	-286	0	3,804	0	1,548	0	3,198	1,961	2	-335	
8	219.98	43,100	-1,014	0	3,743	0	1,465	0	3,898	1,842	3	24	
9	219.60	42,119	-981	0	3,729	0	1,381	0	3,739	1,929	3	66	
10	220.33	44,009	1,890	0	3,713	0	7,077	0	7,447	2,422	2	34	
11	221.32	46,600	2,591	0	3,729	0	7,259	0	7,173	2,430	2	-77	
12	222.86	50,673	4,073	0	3,718	0	7,330	0	6,492	2,511	2	10	
13	219.91	42,919	-7,754	0	3,760	0	7,296	0	11,621	3,372	2	30	
14	220.08	43,360	441	0	3,706	0	6,994	0	7,666	2,769	4	-39	
15	221.38	46,758	3,398	0	3,683	0	7,004	0	6,463	2,652	4	145	
16	221.70	47,598	840	0	3,737	0	7,216	0	7,768	2,657	5	-100	
17	221.80	47,861	263	0	3,737	0	7,139	0	8,036	2,684	5	-18	
18	222.18	48,863	1,002	0	3,716	0	6,846	0	7,073	2,868	2	-114	
19	222.23	48,995	132	0	3,734	0	6,967	0	7,602	3,162	4	134	
20	220.58	44,661	-4,334	0	3,809	0	6,393	0	8,045	4,117	2	-223	
21	221.57	47,257	2,596	0	3,756	0	7,280	0	6,148	3,383	5	-191	
22	222.13	48,730	1,473	0	3,729	0	6,995	0	6,941	3,187	5	152	
23	221.50	47,073	-1,657	0	3,766	0	7,059	0	7,836	3,741	6	-77	
24	221.81	47,887	814	0	3,728	0	6,781	0	6,133	3,910	7	-49	
25	222.20	48,916	1,029	0	3,647	0	7,007	0	6,041	4,140	7	53	
26	223.07	51,233	2,317	0	3,613	0	7,229	0	6,052	3,707	4	89	
27	219.60	42,119	-9,114	0	3,631	0	6,637	0	9,989	4,751	5	-118	
28	221.31	46,574	4,455	0	3,493	0	6,375	0	4,950	2,621	2	-49	
29	221.27	46,469	-105	0	3,339	0	6,873	0	7,702	3,166	6	609	
30	223.18	51,527	5,058	0	3,089	0	6,716	0	4,200	3,048	6	-1	
31	223.82	53,242	1,715	0	2,987	0	6,617	0	5,878	2,952	5	96	
Total				2,089	0	113,685	0	192,171	0	217,517	87,496	112	322
Mean cfs				---	0	3,667	0	6,199	0	7,017	2,822	4	10
Acre-feet				2,089	0	225,493	0	381,169	0	431,449	173,550	223	649

1/ Pump-in located at Mile 79.67R.

2/ Includes 76 AF delivered to DFG at O'Neill Forebay, 1 AF to Parks and Recreation, 1 AF to Cattle, and 145 AF to San Luis Water District.

**Table 15. Consolidated State-Federal San Luis Reservoir**

Daily Operations

January 2002

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 2,027,835 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)			Computed Losses (-) Gains (+) (cfs)
				Gianelli Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	Pacheco Tunnel 1/	Parks and Rec. Del.		
Dec 31	489.21	1,385,632							
1	490.90	1,404,518	18,886	9,661	0	140	0	1	
2	492.39	1,421,239	16,721	8,581	0	144	0	-7	
3	493.92	1,438,480	17,241	8,845	0	146	0	-7	
4	495.75	1,459,192	20,712	10,597	0	133	0	-22	
5	496.93	1,472,601	13,409	6,894	0	134	0	0	
6	497.75	1,481,943	9,342	4,848	0	138	0	0	
7	498.28	1,487,992	6,049	3,198	0	137	0	-11	
8	498.93	1,495,423	7,431	3,898	0	145	0	-7	
9	499.55	1,502,521	7,098	3,739	0	146	0	-14	
10	500.81	1,516,983	14,462	7,447	0	145	0	-11	
11	502.02	1,530,916	13,933	7,173	0	145	0	-4	
12	503.11	1,543,503	12,587	6,492	0	146	0	0	
13	505.07	1,566,226	22,723	11,621	0	146	0	-19	
14	506.35	1,581,127	14,901	7,666	0	146	0	-8	
15	507.42	1,593,620	12,493	6,463	0	154	0	-11	
16	508.71	1,608,726	15,106	7,768	0	152	0	0	
17	510.04	1,624,352	15,626	8,036	0	158	0	0	
18	511.20	1,638,022	13,670	7,073	0	139	0	-42	
19	512.45	1,652,798	14,776	7,602	0	153	0	0	
20	513.77	1,668,450	15,652	8,045	0	154	0	0	
21	514.77	1,680,341	11,891	6,148	0	153	0	0	
22	515.88	1,693,575	13,234	6,941	0	153	0	-116	
23	517.15	1,708,759	15,184	7,836	0	150	0	-31	
24	518.14	1,720,628	11,869	6,133	0	149	0	0	
25	519.10	1,732,165	11,537	6,041	0	159	0	-66	
26	520.07	1,743,849	11,684	6,052	0	153	0	-8	
27	521.68	1,763,301	19,452	9,989	0	143	0	-39	
28	522.46	1,772,752	9,451	4,950	0	146	0	-39	
29	523.69	1,787,690	14,938	7,702	0	143	0	-28	
30	524.35	1,795,724	8,034	4,200	0	150	0	0	
31	525.28	1,807,066	11,342	5,878	0	160	0	0	
Total		421,434	217,517	0		4,560	0	-489	
Mean cfs		---	7,017	0		147	0	-16	
Acre-feet		421,434	431,449	0		9,043	0	-972	

1/ Pacheco Tunnel, San Felipe Split; Santa Clara: 8,720 AF, San Benito: 323 AF.

**Table 16. San Luis Field Division Plant Data**

(in acre-feet)

**January 2002**

Date	Dos Amigos Pumping Plant		Gianelli Pumping - Generating Plant				San Felipe Project
	Total Pumping	SWP Pumping 1/ 2/	Total Generation	SWP Generation 1/ 2/	Total Pumping	SWP Pumping 1/ 2/	Federal
1	5,111	4,410	0	0	19,163	10,003	278
2	3,079	2,410	0	0	17,021	12,997	285
3	3,493	2,808	0	0	17,545	13,669	290
4	2,728	2,036	0	0	21,019	12,950	264
5	3,587	2,915	0	0	13,675	7,689	265
6	4,842	4,669	0	0	9,616	-12	274
7	3,889	3,696	0	0	6,343	-187	272
8	3,654	3,462	0	0	7,732	-178	287
9	3,826	3,634	0	0	7,417	120	289
10	4,804	4,611	0	0	14,772	11,148	288
11	4,819	4,625	0	0	14,228	6,166	288
12	4,980	4,780	0	0	12,877	6,566	290
13	6,688	6,510	0	0	23,050	11,988	289
14	5,493	5,298	0	0	15,206	8,920	289
15	5,261	4,577	0	0	12,820	6,467	306
16	5,271	4,560	0	0	15,407	9,158	301
17	5,324	4,201	0	0	15,939	9,658	314
18	5,689	4,571	0	0	14,029	7,850	275
19	6,271	5,169	0	0	15,080	8,798	304
20	8,166	7,097	0	0	15,957	5,456	306
21	6,710	5,614	0	0	12,194	8,374	304
22	6,322	5,213	0	0	13,767	9,982	303
23	7,421	5,666	0	0	15,543	9,496	297
24	7,756	5,955	0	0	12,165	6,188	295
25	8,212	6,131	0	0	11,983	6,138	315
26	7,353	5,290	0	0	12,003	8,304	304
27	9,423	7,344	0	0	19,813	10,216	283
28	5,198	3,192	0	0	9,818	6,234	290
29	6,280	4,242	0	0	15,277	9,760	284
30	6,045	3,982	0	0	8,331	4,830	297
31	5,855	3,756	0	0	11,659	8,133	317
Total	173,550	142,424	0	0	431,449	236,881	9,043

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

2/ Provisional, subject to change.

**Table 17. Consolidated State-Federal Los Banos Reservoir**

Daily Operations

January 2002

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft)
					Spill	Outlet	
Dec 31	324.94	19,257					
1	325.13	19,343	86	43	0	0	1
2	325.30	19,420	77	39	0	0	0
3	326.10	19,786	366	185	0	0	-1
4	326.35	19,901	115	58	0	0	0
5	326.51	19,975	74	37	0	0	1
6	326.63	20,030	55	28	0	0	-1
7	326.72	20,072	42	21	0	0	0
8	326.79	20,104	32	16	0	0	0
9	326.84	20,128	24	12	0	0	0
10	326.88	20,146	18	9	0	0	0
11	326.92	20,165	19	10	0	0	-1
12	326.95	20,179	14	7	0	0	0
13	326.99	20,197	18	9	0	0	0
14	327.02	20,211	14	7	0	0	0
15	327.04	20,220	9	5	0	0	-1
16	327.05	20,225	5	3	0	0	0
17	327.08	20,239	14	7	0	0	0
18	327.09	20,244	5	3	0	0	0
19	327.11	20,253	9	5	0	0	-1
20	327.13	20,262	9	5	0	0	-1
21	327.16	20,276	14	7	0	0	0
22	327.15	20,272	-4	0	0	0	-4
23	327.15	20,272	0	0	0	0	0
24	327.17	20,281	9	5	0	0	-1
25	327.19	20,290	9	5	0	0	-1
26	327.21	20,300	10	5	0	0	0
27	327.22	20,304	4	2	0	0	0
28	327.22	20,304	0	0	0	0	0
29	327.23	20,309	5	3	0	0	-1
30	327.23	20,309	0	0	0	0	0
31	327.25	20,318	9	5	0	0	-1
Total			1,061	541	0	0	-12
Mean cfs			---	17	0	0	---
Acre-feet			1,061	1,073	0	0	-12

**Table 18. Consolidated State-Federal Little Panoche Reservoir**

Daily Operations

**January 2002**

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

Capacity: 5,580 ac-ft

State of California

The Resources Agency

Department of Water Resources

State Water Project

Date	Water Surface Elev. (in feet)	Storage (ac-ft) 1/	Storage Change (ac-ft) 1/	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft) 1/
					Spill	Outlet	
Dec 31	602.65	829					
1	602.60	826	-3	0	0	2	
2	602.60	826	0	3	0	3	
3	Not Observed			3	0	3	
4	Not Observed			3	0	3	
5	602.65	829	3	4	0	2	
6	602.65	829	0	2	0	2	
7	602.65	829	0	2	0	2	
8	602.65	829	0	2	0	2	
9	602.65	829	0	2	0	2	
10	602.65	829	0	2	0	2	
11	602.65	829	0	2	0	2	
12	602.60	826	-3	0	0	2	
13	602.60	826	0	2	0	2	
14	602.60	826	0	2	0	2	
15	602.60	826	0	2	0	2	
16	Not Observed			2	0	2	
17	602.60	826	0	2	0	2	
18	602.60	826	0	2	0	2	
19	Not Observed			2	0	2	
20	Not Observed			2	0	2	
21	Not Observed			2	0	2	
22	602.65	829	3	4	0	2	
23	Not Observed			2	0	2	
24	602.65	829	0	2	0	2	
25	602.65	829	0	2	0	2	
26	Not Observed			2	0	2	
27	602.60	826	-3	0	0	2	
28	602.65	829	3	4	0	2	
29	602.65	829	0	2	0	2	
30	Not Observed			2	0	2	
31	602.65	829	0	2	0	2	
Total			0	65	0	65	---
Mean cfs			---	2	0	2	---
Acre-feet			0	129	0	129	0

1/ Not available on a daily basis

**Table 19a. Governor Edmund G. Brown California Aqueduct**  
 San Luis Field Division, Monthly Deliveries

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries				
	Beginning and Ending		Structure			USBR	Transfer	DWR Recreation	USBR Recreation	
	No.	Structure	Mile							
2B	12	Check No. 12	66.71		381,169					
3A		San Luis Reservoir		Department of Parks and Recreation	0	8,720	323	0	0	
				San Felipe Division Santa Clara Water District	8,720					
				San Felipe Division San Benito Water District	323					
				Department of Parks and Recreation	1			1	0	
3	13	O'Neill Forebay	70.85	Cattle Program	1	145	0	1	0	
				Department of Fish & Game	76			42	34	
				70.91 Thru 85.08	San Luis Water District (Floodwater Inflow)					
			86.73	Reach 3 Subtotal:	222	145	0	42	35	
				Check No. 13						
				Dos Amigos Pumping Plant	173,550					
				89.03 Thru 94.06	San Luis Water District	978	978			
				89.66 Thru 89.67	Pacheco Water District	328	328			
				89.68	Panoche Water District	34	34			
				89.70	City of Dos Palos	67	67			
4	14		Check No. 14	95.06						
			98.15 Thru 104.20	San Luis Water District	88	88	1			
				Panoche Water District (Floodwater Inflow)	2,567					
				102.64	Broadview Water District	1				
			102.64 Thru 108.64	Westlands Water District	3,932	2,567	3,932			
				105.22						
				108.64						
			Check No.15	108.50						
				San Felipe Division Total:	9,043	9,043	0	0	0	
				Pacheco Water District Total:	328	328	0	0	0	
				Broadview Water District Total:	1	1	0	0	0	
				City of Dos Palos Total:	67	67	0	0	0	
				SLWD Reach 4 Subtotal:	1,066	1,066	0	0	0	
				Panoche Water District Total:	2,601	2,601	0	0	0	
				SLWD Total:	1,211	1,211	0	0	0	
				Westlands WD Reach 4 Subtotal:	3,932	3,932	0	0	0	

**Table 19b. Governor Edmund G. Brown California Aqueduct**

San Luis Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries							
		Beginning and Ending				USBR	Transfer	DWR Recreation	USBR Recreation				
	No.	Structure	Mile										
5	16		110.52	(Reverse flow, Kings River)	0	3,965			52				
			Thru	Westlands Water District	3,965								
			122.05	Department of Fish and Game	52								
		Check No. 16	122.07										
	17		124.18	Westlands Water District	3,982	3,982							
			Thru										
			132.74										
		Check No. 17	132.95										
	18		133.81	Westlands Water District	4,195	4,195							
			Thru										
			142.61										
		Pleasant Valley Pumping Plant	143.16	Westlands Water District	2,544								
			143.16	City of Coalinga	280								
		Check No. 18	143.23										
				Westlands WD Reach 5 Subtotal:	14,686	14,686	0	0	0				
6	19		145.26	Westlands Water District	10,106	10,106							
			Thru										
			151.19										
		Check No. 19	155.64										
				Westlands WD Reach 6 Subtotal:	10,106	10,106	0	0	0				
7	20		156.34	City of Huron	43	43							
			156.40	Westlands Water District	5,636								
			Thru										
			163.69										
		Check No. 20	164.69										
	21		164.79	City of Avenal	212	212							
			167.04	Westlands Water District	774								
			Thru										
			171.67										
		Check No. 21	172.40		135,010								
				Reach 7 Total:	6,665	6,665	0	0	0				
				Westlands WD Total:	35,134	35,134	0	0	0				
				City of Coalinga Total:	280	280	0	0	0				
				City of Huron Total:	43	43	0	0	0				
				City of Avenal Total:	212	212	0	0	0				
				Phase I Water Total:	0	0	0	0	0				
Total San Luis Field Division Deliveries:					49,050	48,920	0	43	87				

**Table 20. Consolidated State-Federal San Luis Canal 1/**

Daily Operations  
January 2002

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Date	Storage In Canal (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
			Non- Project 2/	Dos Amigos Pumping Plant	Pools 14 & 15 3/	Pool 15	Pools 15 thru 21 4/	Flow Past Check 21	
Jan 31	27,935								
1	27,563	-372	0	2,577	2	3	108	2,739	88
2	27,690	127	0	1,552	2	5	112	1,353	-16
3	27,932	242	0	1,761	4	7	130	1,427	-71
4	27,430	-502	0	1,375	4	7	135	1,382	-100
5	27,281	-149	0	1,808	3	8	157	1,638	-78
6	26,870	-411	0	2,441	4	9	251	2,373	-11
7	27,319	449	0	1,961	5	10	418	1,464	162
8	27,089	-230	0	1,842	6	12	560	1,586	206
9	26,535	-554	0	1,929	6	19	562	1,768	147
10	26,905	370	0	2,422	11	28	572	1,778	153
11	27,031	126	0	2,430	14	29	574	1,851	101
12	26,931	-100	0	2,511	15	30	561	2,042	86
13	27,115	184	0	3,372	11	34	564	2,763	93
14	27,643	528	0	2,769	13	47	511	1,894	-38
15	27,758	115	0	2,652	12	49	607	2,040	114
16	27,905	147	0	2,657	13	59	610	1,864	-37
17	27,212	-693	0	2,684	20	64	706	2,269	25
18	27,037	-175	0	2,868	23	65	710	2,133	-25
19	26,899	-138	0	3,162	25	81	729	2,346	-50
20	27,533	634	0	4,117	26	82	731	3,123	165
21	27,544	11	0	3,383	26	82	735	2,582	48
22	27,064	-480	0	3,187	31	76	775	2,613	66
23	27,548	484	0	3,741	31	76	780	2,661	51
24	27,618	70	0	3,910	40	66	775	2,898	-96
25	27,987	369	0	4,140	45	53	761	2,965	-130
26	27,642	-345	0	3,707	47	53	891	2,941	51
27	28,810	1,168	0	4,751	46	47	824	3,197	-47
28	28,365	-445	0	2,621	56	50	820	2,028	108
29	28,381	16	0	3,166	64	56	785	2,250	-3
30	28,554	173	0	3,048	66	56	792	1,931	-116
31	27,839	-715	0	2,952	66	48	764	2,168	-267
Total		-96	0	87,496	737	1,311	18,010	68,067	580
Mean cfs		---	0	2,822	24	42	581	2,196	19
Acre-feet		-96	0	173,550	1,461	2,601	35,722	135,010	1,148

1/ San Luis Canal includes Pools 14 through 21 of the California Aqueduct.

2/ Pump In of Non-Project Water (0 AF @ Lat.7L) and Flood Water (0 AF) is included in the gain or loss.

3/ Includes 327 AF AG & 1 AF M&I to Pacheco W.D. and 67AF to the City of Dos Palos.

4/ Includes 43 AF to the City of Huron, 212 AF to the City of Avenal, 280 AF to the City of Coalinga,  
1 AF to Broadview W.D., 1 AF to F&G @ WWD Lateral 4L, and 51 AF to F&G @ WWD Lateral 6L.

**Table 21. San Joaquin Field Division Plant Data**

(in acre-feet)

**January 2002**

Date	Coastal Aqueduct					California Aqueduct			
	Las Perillas Pumping Plant	Badger Hill Pumping Plant	Devil's Den Pumping Plant	Bluestone Pumping Plant	Polonio Pass Pumping Plant	Buena Vista Pumping Plant	Teerink Pumping Plant	Chrisman Pumping Plant	Edmonston Pumping Plant
1	62	62	56	51	58	5,324	5,296	5,310	5,240
2	27	27	29	26	32	2,306	2,603	2,484	2,526
3	27	27	41	38	42	2,905	2,948	2,822	2,691
4	79	79	48	44	49	2,535	2,677	2,588	2,633
5	10	10	28	26	29	3,206	3,032	4,569	2,952
6	45	45	42	38	43	4,414	4,595	4,520	4,512
7	32	32	27	24	29	2,705	2,788	2,692	2,662
8	44	44	37	35	38	2,839	2,843	2,802	2,796
9	61	61	33	31	35	2,756	2,866	2,763	2,793
10	49	49	31	29	31	2,525	2,572	2,526	2,504
11	77	77	38	35	40	3,046	3,001	2,943	2,944
12	68	68	29	26	30	3,254	3,481	3,394	3,384
13	77	77	32	29	34	4,493	4,601	4,569	4,512
14	84	84	31	30	34	2,887	3,002	2,952	2,930
15	127	127	49	46	50	2,984	3,038	2,957	2,901
16	206	206	37	34	37	2,975	2,878	2,813	2,793
17	212	212	44	40	44	3,308	3,180	3,085	3,059
18	241	241	47	43	48	2,981	2,948	2,817	2,901
19	209	209	54	54	55	3,049	3,204	3,169	3,094
20	54	54	29	27	30	4,123	4,277	4,205	4,109
21	156	156	40	37	42	2,973	3,140	3,059	3,062
22	273	273	50	48	52	3,269	3,193	3,142	3,064
23	368	368	91	86	89	3,017	3,210	3,071	3,062
24	288	288	84	80	84	3,241	3,100	3,174	3,217
25	327	327	83	77	83	3,125	3,312	3,164	3,169
26	365	365	85	80	86	3,837	3,757	3,601	3,420
27	263	263	83	77	83	4,307	4,626	4,519	4,504
28	204	204	65	59	67	2,867	3,053	2,919	2,893
29	264	264	84	79	84	2,887	3,079	3,019	2,957
30	200	200	82	77	82	2,636	2,714	2,590	2,537
31	190	190	71	69	72	2,689	2,727	2,655	2,603
Total	4,689	4,689	1,580	1,475	1,612	99,463	101,741	100,893	98,424

**Table 22a. Governor Edmund G. Brown California Aqueduct**  
San Joaquin Field Division, Monthly Deliveries

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diver-sions	Deliveries						
	Beginning and Ending					Entitle-ment	USBR	2001-02 Carryover Special	Extended Carryover	Transfer		
	No.	Structure	Mile									
7	21	Check No. 21	172.40		135,010							
8C	22		172.66	Empire West Side Irrig. Dist. TL - A	0			2,190				
				County of Kings TL - A	0							
				TLBWSD TL-A	2,190							
			175.18	DRWD - 1	50							
			177.54	DRWD - 1B	45							
			180.64	TLBWSD - C	0							
			180.65	DRWD - 1A	0							
			182.99	DRWD - 2	385							
			183.00	Tulare Lake Basin WSD TL - B	2,868							
			184.63	Coastal Branch	4,689							
8D			184.78	Dudley Ridge Water Dist. DRWD - 3	705							
				Dudley Ridge Reach 8D Total:	1,185	0	0	1,185	0	0		
31A	8D			Tulare Lake Basin WSD Total:	5,058	0	0	5,058	0	0		
			Check No. 22	184.82								
				Kern County Water Agency Lost Hills Water Dist. - 1	1,892				1,892			
				189.69								
				191.18	Kern County Water Agency Lost Hills Water Dist. - 2	197			197			
				194.22	Kern County Water Agency Lost Hills Water Dist. - 3	24			24			
				196.40	Kern County Water Agency Berrenda Mesa - 2	0						
				196.75	Kern County Water Agency Lost Hills Water Dist. - 4	2			2			
					K.C.W.A. Reach 9 Subtotal:	2,115	0	0	2,115	0		
			Check No. 23	197.05								
9	23		201.24	Kern County Water Agency Lost Hills Water Dist. - 7	8		8	1	1			
			202.05	Kern County Water Agency Lost Hills Water Dist. - 5	1							
			204.69	Kern County Water Agency Lost Hills Water Dist. - 6	0							
			205.26	Kern County Water Agency Lost Hills Water Dist. - 8	0							
			Check No. 24	207.94								
			209.71	Kern County Water Agency Belridge Water Storage Dist. - 1A	0		808	96	1,163	1/ 3,311		
			209.78	Kern National Wildlife Refuge USBR BV-1B	808							
				Kern County Water Agency Buena Vista WSD 1B	96							
			209.80	KCWA Semitropic WSD	4,823							
				KCWA Semitropic WSD Penstocks	2,735							
10A	25			USBR Total:	808	0	808	0	0	0		
				K.C.W.A. Reach 10A Subtotal:	7,663	1,485	0	0	1,786	4,392		

1/ Transfer of SWP carryover water from Santa Clara Valley WD for storage in Semitropic WSD.

2/ Transfer of SWP carryover water from Alameda County FC&WCD Z-7 for storage in Semitropic WSD.

**Table 22b. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	USBR	2001-02 Carryover Special	Extended Carryover	Transfer		
	No.	Structure	Mile									
11B	25		210.75	Kern County Water Agency Belridge - 2	0	73	82	1,660	1,660			
			214.11	Kern County Water Agency Belridge - 3	82							
			216.62	Kern County Water Agency Belridge - 4	0							
			217.13	Kern County Water Agency Belridge - 5	1,660							
				Kern County Water Agency Belridge - 5D	73							
		Check No. 25	217.79									
				K.C.W.A. Reach 11B Subtotal:	1,815	73	0	0	1,742	0		
12D	26		219.58	Kern County Water Agency Belridge - 6	0	6						
				Kern County Water Agency West Kern - 3	6							
		Check No. 26	224.92									
12E	27		230.37	Kern County Water Agency Buena Vista - 6	0	6,919	140	1,382	21			
			Check No. 27	231.73								
	28		235.75	Kern County Water Agency Buena Vista - 2	0							
			238.04	Kern County WA CVC	0							
				DRWD CVC	0							
				Tulare Co.	0							
				Lower Tule River	0							
				Fresno Co.	0							
				Pixley ID	0							
				Hacienda								
				DWR Wells	0							
	Check No. 28	238.11										
13B	29		238.19	1/ Arvin Edison Total:	0	0	0	0	0	0		
				Reach 12E Subtotal:	0	0	0	0	0	0		
			241.02	Kern Water Bank Inflow	7,059	6,919	140	1,382	21			
				Kern Water Bank Outflow	0							
				Kern River Intertie (inflow)	0							
				KCWA Buena Vista WSD - 7	0							
				KCWA Buena Vista WSD - 5	1,382							
				Kern County Water Agency Buena Vista - 3	21							
				Buena Vista WSD	0							
			Check No. 29	244.54								
	30		249.85	Kern County Water Agency Buena Vista - 4	0							
			Buena Vista Pumping Plant	250.99		99,463						
14A	31		254.47	K.C.W.A. Reach 13B Subtotal:	1,403	0	0	0	1,403	0		
				Kern County Water Agency West Kern - 2	0							
			256.11	Kern County Water Agency Wheeler Ridge-Maricopa - 2	0							

1/ Arvin Edison Contractors include Rag Gulch WD, Kern-Tulare WD, Fresno County, Hills Valley ID, Tri Valley WD, Tulare County, Lower Tule River ID, and Pixley ID.

**Table 22c. Governor Edmund G. Brown California Aqueduct**  
San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	USBR	2001-02 Carryover Special	Extended Carryover	Transfer		
	No.	Structure	Mile									
14A	31	Check No. 31	256.14									
	32		258.61		Kern County Water Agency	23			23			
			260.44		Kern County Water Agency		57		57			
			Check No. 32		Wheeler Ridge-Maricopa - 3							
			261.72		Wheeler Ridge-Maricopa - 4							
14B	33		KCWA Reach 14A Subtotal:		80		0	0	0	80	0	
			264.42		Kern County Water Agency	405			405			
			266.91		Wheeler Ridge-Maricopa - 5							
	34	Check No. 33	267.36		Kern County Water Agency	182			182			
			270.24		Wheeler Ridge-Maricopa - 6							
			Check No. 34		Wheeler Ridge-Maricopa - 7							
			271.27		KCWA Reach 14B Total:		979	0	0	979	0	
14C	35		272.39		Kern County Water Agency	294			294			
			276.09		Wheeler Ridge-Maricopa - 8							
					Wheeler Ridge-Maricopa - 9							
15A	36				Reach 14C Total:	466			466			
			Teerink Pumping Plant		278.13							
							101,741					
					279.02	22			22			
					280.06							
16A	38				Reach 15-A Total:	665			665			
			Chrisman Pumping Plant		280.36							
					282.06	2			2			
			Check No. 37		283.95							
					285.01	0			0			
					286.39							
					287.06							
			Check No. 38		287.09	0			0			
					287.62							
			Check No. 39		290.21							
17E	40				291.26	19			19			
					293.07		3		3			
					Kern County Water Agency							
					Tehachapi Cummings CWD							
					K.C.W.A. Reach 16A Subtotal:		24	24	0	0	0	
			Edmonston Pumping Plant		293.45		98,424					

**Table 23. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Coastal Branch)

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	USBR	2001-02 Carryover Special	Extended Carryover	Transfer		
	No.	Structure	Mile									
31A	C-1	Coastal Branch Control	0.02		4,689							
		Las Perillas Pumping Plant	1.16		4,689							
	C-2		3.79	Green Valley Water District	0							
		Badger Hill Pumping Plant	4.27		4,689							
	C-3	Coastal Check No. 3	7.21									
	C-4		9.34	Castaic Lake WA (Devil's Den WD #1)	0							
		Coastal Check No. 4	9.34									
	C-5	Coastal Check No. 5	12.20									
	C-6		13.30	Kern County Water Agency Berrenda Mesa - 3	355					355		
			14.83	Kern County Water Agency Berrenda Mesa - DD	0							
				Kern County Water Agency Berrenda Mesa - PO	2,569							
		Devil's Den Pumping Plant	14.86		1,580							
				K.C.W.A. Reach 31A Subtotal:	2,924	0	0	0	2,924	0		
				K.C.W.A. Total:	18,140	2,253	0	0	11,495	4,392		
33A	C-7	Bluestone Pumping Plant	19.05		1,475					1,404		
	C-8	Polonio Pass Pumping Plant	26.54		1,612							
	C-9	Tank Site 1	27.81	(CCWA) Polonio Pass Treatment Plant								
	C-10	Shandon T.O.	38.23	Santa Barbara County (CCWA)	1,404							
		Tank Site 2	58.63	Central Coast:	0							
34	C-11	Chorro Valley T.O.	69.31	San Luis Obispo County (CCWA)	197							
		Energy Dissipater	78.12									
		Lopez T.O.	85.86	SLOCFC & WCD	0							
35	C-12			CCWA Total:	1,601	197	0	0	1,404	0		
		Guadalupe T.O.	102.70	SBCFC & WCD	0							
		Santa Maria T.O.	107.43	SBCFC & WCD	0							
		So. Cal. Water T.O.	109.20	SBCFC & WCD	0							
38				SBCFC & WCD Total:	0	0	0	0	0	0		
		Tank Site 5	115.42									

1/ Semitropic WSD is storing this water for MWD.

**Table 24. Southern Field Division Plant Data**

(in acre-feet)

**January 2002**

Date	West Branch					East Branch					Devil Canyon Powerplant Generation		
	Oso Pumping Plant	Warne Powerplant		Castaic Powerplant		Alamo Powerplant			Pearblossom Pumping Plant	Mojave Siphon Powerplant			
		Generation	Leakage	Generation	Pumpback	Generation	Bypass Through Plant	Cottonwood Chute		Generation	Leakage	Bypass Flume	
1	2,561	1,707	0	1,957	1,709	2,728	0	0	2,481	2,476	0	0	1,258
2	1,107	2,018	0	3,846	2,237	1,418	0	0	1,464	1,313	0	0	1,647
3	1,084	1,350	0	4,819	1,575	1,631	0	0	1,517	2,030	0	0	2,053
4	1,133	1,196	0	5,707	1,670	1,541	0	0	1,469	1,597	0	0	2,048
5	1,752	1,382	0	387	0	1,260	0	0	1,243	1,401	0	0	2,052
6	2,832	1,908	0	445	3,402	1,711	0	0	1,488	1,278	0	0	2,280
7	882	1,122	0	3,939	2,638	1,815	0	0	1,728	1,616	0	0	2,356
8	841	1,098	0	4,292	11	1,968	0	0	2,013	2,104	0	0	2,347
9	894	904	0	4,439	1,824	1,954	0	0	1,732	1,905	0	0	2,021
10	535	1,028	0	5,445	2,337	1,872	0	0	1,709	1,548	0	0	2,005
11	1,087	1,087	0	4,115	863	1,954	0	0	1,835	1,638	0	0	2,146
12	1,212	1,190	0	131	1,670	2,262	0	0	2,046	2,047	0	0	1,923
13	1,465	1,390	0	176	4,089	3,084	0	0	3,056	3,073	0	0	2,022
14	1,012	1,124	0	3,322	1,999	1,925	0	0	1,833	1,747	0	0	2,174
15	849	1,133	0	3,804	1,690	2,058	0	0	1,851	2,213	0	0	2,063
16	585	746	0	3,159	1,323	2,182	0	0	2,095	2,132	0	0	2,124
17	739	1,036	0	2,717	1,416	2,362	0	0	2,072	1,847	0	0	2,115
18	767	689	0	3,545	7	2,118	0	0	2,170	2,082	0	0	2,161
19	1,287	1,000	0	440	0	1,817	0	0	2,032	1,729	0	0	2,033
20	1,528	1,130	0	97	3,076	2,583	0	0	2,430	2,518	0	0	2,016
21	1,134	1,173	0	1,079	1,393	1,932	0	0	1,813	2,206	0	0	1,973
22	1,101	1,206	0	2,100	1,551	1,353	0	640	1,885	1,932	0	0	2,042
23	1,054	1,168	0	3,076	12	1,832	0	0	1,760	1,589	0	0	1,997
24	1,165	1,185	0	2,222	5	2,052	0	0	1,895	1,889	0	0	1,917
25	1,371	1,203	0	1,620	729	1,800	0	0	1,649	1,550	0	0	1,942
26	1,613	1,236	0	311	21	1,911	0	0	1,659	2,091	0	0	1,800
27	1,460	1,237	0	2,814	2,672	3,044	0	0	2,908	2,545	0	0	1,724
28	1,065	1,302	0	4,070	2,685	1,816	0	0	1,694	1,702	0	0	1,855
29	1,174	1,323	0	4,293	1,651	1,808	0	57	1,851	2,151	0	0	1,840
30	1,200	1,218	0	3,119	1,544	1,266	0	0	1,298	1,120	0	0	1,679
31	940	1,267	0	1,371	0	1,683	0	0	1,519	1,688	0	0	1,831
Total	37,429	37,756	0	82,857	45,799	60,740	0	697	58,195	58,757	0	0	61,444

**Table 25. Pyramid Lake**  
Daily Operation

Capacity: 171,200 ac-ft

(in acre-feet except as noted)

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow			Computed Losses (-) And Gains (+)
				Project		Natural	Project		Natural	
				Castaic Powerplant Pumpback	Warne Powerplant	Stream Flow	Castaic Powerplant Generation	Recreation Deliveries	To Piru Creek	
Dec 31	2573.49	164,144								
1	2574.55	165,485	1,341	1,709	1,707	33	1,957	0	13	-138
2	2574.77	165,765	280	2,237	2,018	34	3,846	0	13	-150
3	2573.38	164,005	-1,760	1,575	1,350	34	4,819	0	13	113
4	2570.92	160,921	-3,084	1,670	1,196	32	5,707	0	13	-262
5	2571.70	161,895	974	0	1,382	32	387	0	13	-40
6	2575.47	166,655	4,760	3,402	1,908	30	445	0	13	-122
7	2575.26	166,388	-267	2,638	1,122	31	3,939	0	13	-106
8	2572.74	163,199	-3,189	11	1,098	31	4,292	0	13	-24
9	2571.27	161,358	-1,841	1,824	904	32	4,439	0	13	-149
10	2569.62	159,307	-2,051	2,337	1,028	33	5,445	0	13	9
11	2567.89	157,175	-2,132	863	1,087	32	4,115	0	12	13
12	2570.00	159,778	2,603	1,670	1,190	31	131	0	12	-145
13	2574.14	164,966	5,188	4,089	1,390	32	176	0	12	-135
14	2573.91	164,675	-291	1,999	1,124	31	3,322	0	12	-111
15	2572.98	163,501	-1,174	1,690	1,133	31	3,804	0	12	-212
16	2572.19	162,509	-992	1,323	746	31	3,159	0	12	79
17	2571.96	162,220	-289	1,416	1,036	29	2,717	1	12	-40
18	2569.57	159,245	-2,975	7	689	33	3,545	0	12	-147
19	2570.00	159,778	533	0	1,000	31	440	0	12	-46
20	2573.21	163,791	4,013	3,076	1,130	33	97	0	12	-117
21	2574.31	165,181	1,390	1,393	1,173	33	1,079	0	12	-118
22	2574.93	165,968	787	1,551	1,206	33	2,100	0	12	109
23	2573.34	163,955	-2,013	12	1,168	30	3,076	0	12	-135
24	2572.40	162,772	-1,183	5	1,185	32	2,222	0	12	-171
25	2572.58	162,998	226	729	1,203	33	1,620	0	12	-107
26	2573.26	163,854	856	21	1,236	32	311	0	12	-110
27	2574.23	165,080	1,226	2,672	1,237	32	2,814	0	12	111
28	2573.95	164,725	-355	2,685	1,302	38	4,070	0	12	-298
29	2572.74	163,199	-1,526	1,651	1,323	34	4,293	0	12	-229
30	2572.44	162,822	-377	1,544	1,218	32	3,119	0	12	-40
31	2572.51	162,910	88	0	1,267	31	1,371	0	12	173
Total			-1,234	45,799	37,756	996	82,857	1	382	-2,545

**Table 26. Elderberry Forebay**

Daily Operation

(in acre-feet except as noted)

Capacity: 32,746 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow			Computed Losses (-) And Gains (+)	
				Castaic Powerplant Generation	Natural	Castaic Powerplant Pumpback	To Castaic Lake			
							Natural	Project		
Dec 31	1516.54	21,790								
1	1516.99	21,976	186	1,957	1	1,709	1	0	-62	
2	1512.17	20,029	-1,947	3,846	1	2,237	1	3,556	0	
3	1519.91	23,202	3,173	4,819	1	1,575	1	0	-71	
4	1523.26	24,649	1,447	5,707	1	1,670	1	2,588	-2	
5	1520.23	23,339	-1,310	387	1	0	1	1,696	-1	
6	1513.23	20,449	-2,890	445	1	3,402	1	0	67	
7	1507.65	18,291	-2,158	3,939	1	2,638	1	3,457	-2	
8	1518.30	22,522	4,231	4,292	1	11	1	0	-50	
9	1517.62	22,238	-284	4,439	1	1,824	1	2,897	-2	
10	1524.64	25,256	3,018	5,445	1	2,337	1	0	-90	
11	1524.94	25,389	133	4,115	1	863	1	3,117	-2	
12	1521.51	23,888	-1,501	131	1	1,670	1	0	38	
13	1512.26	20,064	-3,824	176	1	4,089	1	0	89	
14	1515.74	21,462	1,398	3,322	1	1,999	1	0	75	
15	1520.84	23,600	2,138	3,804	1	1,690	1	0	24	
16	1517.95	22,375	-1,225	3,159	1	1,323	1	3,058	-3	
17	1516.23	21,662	-713	2,717	1	1,416	1	2,012	-2	
18	1518.46	22,589	927	3,545	1	7	1	2,610	-1	
19	1519.42	22,994	405	440	1	0	1	0	-35	
20	1512.44	20,135	-2,859	97	1	3,076	1	0	120	
21	1511.58	19,797	-338	1,079	1	1,393	1	0	-24	
22	1506.50	17,862	-1,935	2,100	1	1,551	1	2,480	-4	
23	1514.39	20,913	3,051	3,076	1	12	1	0	-13	
24	1509.81	19,111	-1,802	2,222	1	5	1	4,018	-1	
25	1512.39	20,116	1,005	1,620	1	729	1	0	114	
26	1513.05	20,377	261	311	2	21	2	0	-29	
27	1513.54	20,572	195	2,814	3	2,672	3	0	53	
28	1510.87	19,520	-1,052	4,070	3	2,685	3	2,427	-10	
29	1517.54	22,204	2,684	4,293	3	1,651	3	0	42	
30	1514.62	21,006	-1,198	3,119	3	1,544	3	2,763	-10	
31	1517.87	22,342	1,336	1,371	4	0	4	0	-35	
Total				552	82,857	43	45,799	43	36,679	
									173	

**Table 27. Castaic Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 323,699 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow		Computed Losses (-) And Gains (+)	
				From Elderberry Forebay		Natural	Deliveries		
				Natural	Project				
Dec 31	1495.28	281,373							
1	1494.77	280,324	-1,049	1	0	3	1,079	0	
2	1495.99	282,836	2,512	1	3,556	3	1,063	0	
3	1495.51	281,846	-990	1	0	3	980	0	
4	1496.36	283,601	1,755	1	2,588	3	862	45	
5	1496.73	284,366	765	1	1,696	3	919	50	
6	1496.28	283,435	-931	1	0	3	922	50	
7	1497.45	285,860	2,425	1	3,457	3	966	50	
8	1496.91	284,739	-1,121	1	0	3	1,090	50	
9	1497.73	286,442	1,703	1	2,897	3	1,190	50	
10	1497.10	285,133	-1,309	1	0	3	1,280	50	
11	1497.84	286,671	1,538	1	3,117	3	1,399	50	
12	1497.12	285,158	-1,513	1	0	3	1,486	50	
13	1496.42	283,725	-1,433	1	0	3	1,515	50	
14	1495.61	282,052	-1,673	1	0	3	1,631	50	
15	1494.91	280,612	-1,440	1	0	3	1,484	47	
16	1495.60	282,032	1,420	1	3,058	3	1,526	0	
17	1495.89	282,630	598	1	2,012	3	1,349	0	
18	1496.35	283,580	950	1	2,610	3	1,456	0	
19	1495.63	282,093	-1,487	1	0	3	1,531	0	
20	1494.95	280,694	-1,399	1	0	3	1,409	0	
21	1494.28	279,319	-1,375	1	0	3	1,393	0	
22	1494.63	280,037	718	1	2,480	3	1,667	0	
23	1493.80	278,336	-1,701	1	0	3	1,761	0	
24	1494.92	280,632	2,296	1	4,018	3	1,554	0	
25	1494.08	278,909	-1,723	1	0	3	1,791	0	
26	1493.21	277,131	-1,778	2	0	4	1,825	0	
27	1492.49	275,665	-1,466	3	0	10	1,675	0	
28	1492.95	276,601	936	3	2,427	13	1,639	0	
29	1492.20	275,076	-1,525	3	0	7	1,525	0	
30	1492.78	276,255	1,179	3	2,763	6	1,539	0	
31	1492.06	274,791	-1,464	4	0	6	1,530	0	
<b>Total</b>			<b>-6,582</b>	<b>43</b>	<b>36,679</b>	<b>121</b>	<b>43,036</b>	<b>592</b>	
								<b>203</b>	

**Table 28. Governor Edmund G. Brown California Aqueduct**  
 Southern Field Division, Monthly Deliveries (West Branch)

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	Rec.	2001-02 Carryover Special	Extended Carryover	Local		
	No.	Structure	Mile									
29A	42	Oso Pumping Plant	1.49		37,429							
29F	W2	Quail Lake	5.02	Antelope Valley-East Kern Water Agency	Re-moved	1	15	9,212	30,786			
		Quail Lake Embankment	7.82	Antelope Valley-East Kern Water Agency	Stub							
29G		Warne Power Plant	14.07		37,756							
29H	W3	Pyramid Lake		Calif. State Park Pyramid Recreation	1	15	1,605	1,605	154			
		Pyramid Dam	17.10	Piru Creek Fish Enhancement	0							
29J	W4	Castaic Power Plant	25.82	( 45,799 AF pumpback )	82,857		0	0	0			
		Elderberry Forebay										
		Forebay Dam	28.12									
30 1/	W5	Castaic Lake		Calif. State Park Castaic Lake Recreation	15		0	2,869	40,152	0		
		Castaic Dam	31.47									
		Castaic Lake Outlet	31.55	MWD - 78"	9,212							
				MWD - 132"	30,786							
				Castaic Lake WA - T1	1,605							
				Castaic Lake WA	1,264							
				United Water Conservation Dist.	0							
				MWD - Ventura County FCD	154							
				LA Co. Parks & Recreation	0							
				Releases to Lagoon	318							
				Reach 30 Subtotal:	43,036							
	W6	Castaic Lagoon		Recreation to Lagoon	15		15	0	0			
		Castaic Lagoon Outlet	31.87		184							

1/ Reach 30 actually terminates at mile 31.50. It is shown here as including the outlet works at mile 31.55.

All deliveries from the outlet works and from the Lagoon are billed to Reach 30.

**Table 29. Silverwood Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 74,970 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow				Computed Losses (-) And Gains (+)	Las Flores Ranch Exchange 1/	
							Project		Del. To Mojave W.A.	Natural To Mojave River			
				Mojave Siphon Power-plant	Mojave Bypass Flume	Natural Stream Flow	Delivered to CLAWA	Rec.					
Dec 31	3352.03	72,102											
1	3353.08	73,109	1,007	2,476	0	1	5	0	1,258	0	0	-207	
2	3352.79	72,830	-279	1,313	0	0	5	0	1,647	0	1	61	
3	3352.86	72,897	67	2,030	0	1	4	0	2,053	0	0	93	
4	3352.50	72,551	-346	1,597	0	1	4	0	2,048	0	1	109	
5	3351.74	71,825	-726	1,401	0	1	4	0	2,052	0	0	-72	
6	3350.68	70,818	-1,007	1,278	0	1	4	0	2,280	0	0	-2	
7	3350.00	70,176	-642	1,616	0	1	4	0	2,356	0	0	101	
8	3349.65	69,847	-329	2,104	0	0	3	1	2,347	0	1	-81	
9	3349.45	69,660	-187	1,905	0	1	5	0	2,021	0	0	-67	
10	3349.14	69,369	-291	1,548	0	1	3	0	2,005	0	1	169	
11	3348.55	68,819	-550	1,638	0	1	5	0	2,146	0	0	-38	
12	3348.64	68,902	83	2,047	0	0	0	0	1,923	0	1	-40	
13	3349.78	69,969	1,067	3,073	0	1	2	0	2,022	0	0	17	
14	3349.34	69,557	-412	1,747	0	1	6	0	2,174	0	1	21	
15	3349.39	69,603	46	2,213	0	0	6	0	2,063	0	0	-98	
16	3349.58	69,782	179	2,132	0	1	2	0	2,124	0	1	173	
17	3349.16	69,388	-394	1,847	0	1	2	1	2,115	0	0	-124	
18	3349.27	69,491	103	2,082	0	1	2	0	2,161	0	1	184	
19	3348.80	69,052	-439	1,729	0	0	4	0	2,033	0	0	-131	
20	3349.32	69,538	486	2,518	0	1	3	0	2,016	0	0	-14	
21	3349.73	69,922	384	2,206	0	1	2	0	1,973	0	0	152	
22	3349.52	69,725	-197	1,932	0	0	3	0	2,042	0	0	-84	
23	3349.04	69,276	-449	1,589	0	1	1	0	1,997	0	1	-40	
24	3349.09	69,323	47	1,889	0	1	5	0	1,917	0	0	79	
25	3348.66	68,921	-402	1,550	0	1	4	0	1,942	0	0	-7	
26	3348.99	69,229	308	2,091	0	0	4	0	1,800	0	0	21	
27	3349.91	70,092	863	2,545	0	2	5	0	1,724	0	1	46	
28	3349.93	70,111	19	1,702	0	22	4	0	1,855	0	0	154	
29	3350.12	70,289	178	2,151	0	5	4	0	1,840	0	0	-134	
30	3349.63	69,829	-460	1,120	0	3	4	0	1,679	0	0	100	
31	3349.48	69,688	-141	1,688	0	3	4	0	1,831	0	1	4	
Total				-2,414	58,757	0	54	113	2	61,444	0	11	345
1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.													

**Table 30. Lake Perris**

## Daily Operation

(in acre-feet except as noted)

Capacity: 131,452 ac-ft

**January 2002**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow 1/	Outflow 2/	Computed Losses (-) Gains (+) 1/
Dec 31	1583.63	116,976				
1	1583.69	117,109	133		615	
2	1583.67	117,065	-44		646	
3	1583.72	117,176	111		813	
4	1583.62	116,953	-223		951	
5	1583.53	116,753	-200		953	
6	1583.48	116,642	-111		950	
7	1583.45	116,576	-66		953	
8	1583.38	116,421	-155		537	
9	1583.38	116,421	0		237	
10	1583.33	116,310	-111		258	
11	1583.35	116,354	44		279	
12	1583.10	115,791	-563		277	
13	1583.10	115,800	9		278	
14	1583.10	115,800	0		277	
15	1583.09	115,778	-22		277	
16	1583.07	115,734	-44		277	
17	1583.01	115,601	-133		278	
18	1582.98	115,534	-67		277	
19	1582.95	115,468	-66		285	
20	1582.92	115,402	-66		287	
21	1582.87	115,291	-111		277	
22	1582.88	115,313	22		277	
23	1582.78	115,092	-221		278	
24	1582.71	114,938	-154		276	
25	1582.67	114,849	-89		278	
26	1582.63	114,761	-88		424	
27	1582.61	114,717	-44		277	
28	1582.65	114,805	88		279	
29	1582.52	114,518	-287		287	
30	1582.51	114,496	-22		287	
31	1582.47	114,408	-88		288	
<b>Total</b>		<b>-2,568</b>		<b>12,510</b>	<b>12,933</b>	<b>-2,145</b>

1/ Readings are not taken on a daily basis. End of month only.

2/ Includes deliveries to MWD from Reach 28J and recreation water to California State Park at lake Perris.

**Table 31a. Governor Edmund G. Brown California Aqueduct**  
 Southern Field Division, Monthly Deliveries (East Branch)

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	Rec.	Transfer 1/	2001-02 Carryover Special			
	No.	Structure	Mile							Transfer Local Out		
17E	40	Edmonston Pumping Plant	293.45		98,424							
	41		298.65	Kern County Water Agency Tej.-Cas	Stub							
17F		Check No. 41	303.41									
18A	42	Check No. 42	304.99									
19	43	Alamo Powerplant	305.73	(Does not include 697 AF flow down Cottonwood Chute)	60,740				36	1		
			308.05	Antelope Valley-East Kern WA	36							
		Check No. 43	309.70									
	44		311.84	LADWP Connection	0							
			313.50	AVEK 245th Street West	0							
	Check No. 44		314.81									
	45		314.93	AVEK 235th Street West	1							
			315.57	AVEK 225th Street West	0							
	Check No. 45		319.74									
	46		323.19	Antelope Valley-East Kern WA Fairmont	380			56	324			
		Check No. 46	323.84									
				Reach 19 Total:	417	0	0	56	361	0		
20A	47	Check No. 47	326.77						36	1,410		
	48		326.91	Antelope Valley-East Kern WA Willow Springs Siphon	36							
			329.65	Antelope Valley-East Kern WA 120th Street West	Removed							
		Check No. 48	330.82									
	49	Check No. 49	335.93									
20B	50		336.73	AVEK WA - Quartz Hill (Wheeled for Palmdale WD)	0			569	18	63		
				Antelope Valley-East Kern WA	1,410							
			339.68	Antelope Valley-East Kern WA	18							
	51	Check No. 50	341.51									
	52	Check No. 51	342.07									
21	53		342.80	Antelope Valley-East Kern WA 30th Street West	Not in Use			569	189	189		
		Check No. 52	343.74									
	54		346.98	PWD Palmdale	569							
			348.14	Antelope Valley-East Kern WA Acton Treatment Plant	63							
	55	Check No. 53	348.17									
22A	56	Check No. 54	350.25					569	189	189		
	57	Check No. 55	352.70									
	58	Check No. 56	354.76									
			354.97	Littlerock Creek I.D.	0							
	57	Check No. 57	356.93									
			357.60	Antelope Valley-East Kern WA	0							
			357.72	Antelope Valley-East Kern WA 96th Street East	189							
			359.82	Antelope Valley-East Kern WA East Side Treatment Plant	0							

1/ AVEK transferred this water to Mojave Water Agency.

**Table 31b. Governor Edmund G. Brown California Aqueduct**  
 Southern Field Division, Monthly Deliveries (East Branch, Continued)

(In acre-feet)

**January 2002**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Entitlement	Rec.	2001-02 Carryover Special	Extended Carryover			
	No.	Structure	Mile						Local			
22B	58	Pearblossom Pumping Plant	360.61		58,195	320	113	2	24,399			
	59	Check No. 59	366.09									
	60	Check No. 60	373.94									
	61	Check No. 61	379.00									
	62	Check No. 62	384.26									
	63	Check No. 63	389.20		Mojave Water Agency Mojave River							
	64	Check No. 64	395.10									
	65	Check No. 65	400.32									
	66		401.10		Mojave Water Agency Morongo 24" and 42"	320						
					Mojave Water Agency Hesperia	0						
23	Check No. 66	403.41										
24	Mojave Siphon	405.48		407.65	Las Flores Ranch	0	113	2	3,278			
	Mojave Siphon Powerplant	405.65				58,757						
	Silverwood Lake		407.65		Crestline Lake Arrowhead Water Agency	113						
					Calif. State Park Silverwood Agency (Rec.)	2						
	San Bernardino Tunnel	411.46				61,444						
25					San Gorgonio Pass Water Agency	0						
	Devil Canyon Powerplant	412.73				61,444						
26A	Devil Canyon Afterbay Control Structures	412.88			MWD-SC Rialto	24,399	1,895	23	4,000			
					Desert Water Agency (MWD Wheeling Exchange)	0						
					San Gabriel Valley Water District	3,278						
					Coachella Valley WD (MWD Wheeling Exchange)	0						
					San Bernardino Valley MWD 24" and 72"	1,895						
					San Bernardino Valley MWD 48"	0						
					MWD (SBVMWD Exchange)	0						
28G	Santa Ana Valley Pipeline	425.46										
28H		433.06			MWD-SC Box Springs	3,568	17,458	290	4,000			
		440.05			MWD-SC Perris Bypass Pipeline	17,458						
28J	Lake Perris	442.00			MWD-SC 18"	290	23	0	98,487			
		443.44			MWD-SC 54"	4,000						
					MWD-SC 78"	8,620						
					Calif. State Park Lake Perris Recreation	23						
					MWD Total:	98,487						

**Table 32. Water Quality At Selected SWP Locations**

**January 2002**

Constituent	Units	Thermalito Afterbay At Outlet	North Bay Aqueduct Barker Slough Pumping Plant	Banks Pumping Plant	Delta Mendota Canal At McCabe Rd.	California Aqueduct				Devil Canyon Afterbay Near San Bernardino
						O'Neill Forebay Outlet (Check 13)	Kettleman City (Check 21)	Near Hwy 119 (Check 29)	Tehachapi Afterbay (Check 41)	
Alkalinity	mg/L as CaCO <sub>3</sub>	38	70	69	86	77	75	82	82	85
Antimony	mg/L	NR	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NR	NR
Arsenic	mg/L	<0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Beryllium	mg/L	NR	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boron	mg/L	<0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.2
Bromide	mg/L	NR	0.02	0.13	0.20	0.17	0.17	0.22	0.24	0.34
Calcium	mg/L	8	10	20	30	25	21	21	21	21
Carbon-Dissolved Organic	mg/L as C	NR	16	8	8	8	5	5	4	3
Carbon-Total Organic	mg/L as C	NR	NR	NR	12	13	8	6	5	5
Chloride	mg/L	1	25	46	75	64	63	73	79	101
Chromium	mg/L	<0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001
Copper	mg/L	0.001	0.005	0.003	0.003	0.003	0.002	0.002	0.002	0.002
Fluoride	mg/L	<0.1	0	0.1	0.1	0.1	0.1	<0.1	<0.1	0.1
Hardness	mg/L as CaCO <sub>3</sub>	34	67	95	136	118	103	106	110	106
Iron	mg/L	0.020	0.245	0.085	0.060	0.058	0.030	0.023	0.020	<0.005
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium	mg/L	4	10	11	15	14	12	13	14	13
Manganese	mg/L	<0.005	0.05	0.03	0.03	0.02	<0.005	<0.005	<0.005	<0.005
Nitrite + Nitrate	mg/L as N	0.01	0.14	1.70	NR	NR	1.40	NR	1.20	0.83
Phosphate-Ortho	mg/L as P	<0.01	0.20	0.15	NR	NR	0.13	NR	0.08	0.62
Phosphorus-Total	mg/L	<0.01	0.34	0.12	NR	NR	0.18	NR	0.10	0.04
Selenium	mg/L	NR	<0.001	<0.001	NR	NR	NR	0.001	NR	NR
Sodium	mg/L	3	28	31	54	46	43	49	53	64
Specific Conductance	µS/cm	89	279	379	569	488	452	500	526	609
Sulfate	mg/L	2	22	37	70	54	41	39	41	45
Total Dissolved Solids	mg/L	57	195	232	347	300	265	273	348	164
Turbidity	NTU	8	47	20	24	15	10	11	6	4
Zinc	mg/l	<0.005	<0.005	0	<0.005	<0.005	<0.005	<0.005	0	<0.005

mg/l milligrams per liter

µS/cm microSiemens per centimeter

NR - Not Reported

NTU - nephelometric turbidity units

**Table 33. Water Quality At Selected Delta Stations**

**January 2002**

Date	Tides (feet above mean sea level)		Flow In CFS		Electrical Conductivity in milliSiemens/cm								Cl in mg/l		
			Net Delta Outflow Index		Rio Vista	Antioch	Chippis island	Emmaton		Jersey Point		Clifton Court	Cache Slough	Delta Mendota Canal	
	(Antioch) Daily Mean		Mean Daily	Monthly Average				md	md	md	14dm	md	14dm	md	md
	Hi	Half		md	md	md	14dm	md	14dm	md	md	md	md	md	
1	3.81	1.67	45,994	45,994	39,630	0.47	0.75	0.26	0.21	0.37	0.45	0.54	0.00	0.34	112
2	3.87	1.84	48,417	47,206	50,113	0.44	0.49	0.25	0.21	0.36	0.45	0.47	0.00	0.31	110
3	3.15	1.59	56,688	50,366	49,291	0.41	0.27	0.21	0.20	0.34	0.43	0.47	0.00	0.32	112
4	2.49	1.16	54,663	51,440	57,009	0.37	0.22	0.19	0.20	0.31	0.42	0.45	0.00	0.31	107
5	2.59	0.96	68,833	54,919	89,588	0.35	0.22	0.18	0.20	0.29	0.40	0.41	0.00	0.30	103
6	2.86	0.99	101,787	62,730	92,136	0.32	0.22	0.17	0.20	0.27	0.38	0.41	0.00	0.31	100
7	3.09	1.06	103,540	68,560	79,005	0.30	0.23	0.17	0.20	0.25	0.37	0.49	0.00	0.32	107
8	3.42	1.29	85,547	70,684	68,488	0.28	0.18	0.17	0.20	0.25	0.35	0.50	0.00	0.33	99
9	3.61	1.50	75,425	71,210	62,171	0.27	0.19	0.17	0.20	0.24	0.34	0.48	0.00	0.34	100
10	3.45	1.40	62,319	70,321	55,197	0.26	0.17	0.17	0.19	0.23	0.32	0.48	0.00	0.38	103
11	3.17	1.18	54,771	68,907	51,670	0.25	0.16	0.17	0.19	0.23	0.31	0.47	0.00	0.46	89
12	3.24	1.21	50,955	67,411	47,366	0.23	0.16	0.17	0.19	0.23	0.29	0.45	0.00	0.55	95
13	3.32	1.27	45,717	65,743	42,036	0.23	0.15	0.18	0.19	0.23	0.28	0.42	0.00	0.55	92
14	3.25	1.30	39,522	63,870	36,069	0.23	0.16	0.18	0.18	0.22	0.27	0.44	0.00	0.55	88
15	3.08	1.23	32,622	61,787	30,774	0.23	0.18	0.18	0.18	0.22	0.25	0.43	0.90	0.54	86
16	2.62	1.09	26,735	59,596	28,439	0.23	0.17	0.19	0.18	0.22	0.25	0.40	0.92	0.55	78
17	2.23	0.96	23,715	57,485	26,348	0.22	0.16	0.20	0.18	0.22	0.24	0.38	0.93	0.54	70
18	1.97	0.80	21,380	55,479	24,094	0.22	0.17	0.21	0.18	0.22	0.24	0.37	0.95	0.54	73
19	1.96	0.68	18,745	53,546	23,031	0.22	0.18	0.21	0.18	0.22	0.23	0.37	0.97	0.56	67
20	1.82	0.40	17,876	51,762	21,685	0.22	0.18	0.22	0.19	0.23	0.23	0.39	0.98	0.62	65
21	2.06	0.51	15,925	50,056	20,239	0.23	0.29	0.23	0.19	0.23	0.23	0.28	0.98	0.58	63
22	2.34	0.47	14,297	48,431	19,389	0.22	0.48	0.23	0.19	0.24	0.23	0.32	0.99	0.56	66
23	2.26	0.32	13,580	46,915	18,522	0.24	0.49	0.23	0.20	0.24	0.23	0.30	0.98	0.58	63
24	2.37	0.29	12,177	45,468	17,978	0.25	0.68	0.24	0.20	0.24	0.23	0.66	0.97	0.58	61
25	2.87	0.62	11,494	44,109	17,163	0.28	1.31	0.25	0.21	0.25	0.23	0.66	0.97	0.54	63
26	3.64	1.23	10,562	42,819	16,497	0.43	2.58	0.26	0.22	0.26	0.23	0.66	0.97	0.54	54
27	3.51	1.20	11,263	41,650	17,300	0.51	2.72	0.26	0.22	0.26	0.23	0.66	0.94	0.55	51
28	3.52	1.20	12,034	40,592	17,349	0.59	2.68	0.27	0.23	0.28	0.24	0.66	0.89	0.58	51
29	3.22	1.00	11,891	39,603	16,960	0.56	2.24	0.26	0.23	0.28	0.24	0.66	0.93	0.58	50
30	2.83	0.76	11,644	38,671	16,650	0.55	1.94	0.25	0.24	0.28	0.25	0.66	0.00	0.57	51
31	2.43	0.58	11,239	37,786	16,348	0.54	1.60	0.25	0.24	0.28	0.25	0.66	0.92	0.57	49

Clifton Court Cl(mg/l)=200X EC - 25

e = Estimated

N.R. = No Record.

N.C. = Not computed due to insufficient data.

f = Excess Delta conditions with fish concerns.

r = Excess delta conditions with export/inflow ratio concerns.

s = Balanced water conditions with storage withdrawals.

dm = Daily Mean

md = Mean Daily

**Table 34. Pesticides, Herbicides, and Other Organic Substances Detected In the SWP**

**January 2002**

Sampling Location	Sample Date 1/	Chemical Detected	Concentration µg/l 2/
North Bay Aqueduct At Barker Slough Pumping Plant	September 19, 2001	Toluene 2,4-Dichlorophenylacetic acid (DCAA)	1.1 1.06
California Aqueduct At Banks Pumping Plant	September 19, 2001	Toluene 2,4-Dichlorophenylacetic acid (DCAA)	0.73 0.909
O'Niell Forebay Outlet Check 13	September 19, 2001	2,4-Dichlorophenylacetic acid (DCAA)	0.88
Delta Mendota Canal At McCabe Road	September 19, 2001	2,4-Dichlorophenylacetic acid (DCAA) Methyl tert-butyl ether (MTBE)	0.94 1.2
California Aqueduct Near Kettleman City (Check 21)	September 19, 2001	2,4-Dichlorophenylacetic acid (DCAA)	0.82
California Aqueduct At Near Highway 119 (Check 21)	September 18, 2001	2,4-Dichlorophenylacetic acid (DCAA)	1.00
Devil Canyon Power Plant At Entrance To Santa Ana Pipeline	September 17, 2001	2,4-Dichlorophenylacetic acid (DCAA)	0.81

1/ Locations are normally sampled during March, June, and September. Monthly reports will include data for the month in which samples were most recently taken.

2/ Micrograms per liter.

**Table 35. Oroville and Delta Field Divisions Energy Data**

(in kWh)

**January 2002**

Date	Oroville Thermalito Complex		Barker Slough Pumping Plant	Cordelia Pumping Plant Load	Banks Pumping Plant		South Bay Pumping Plant Load	Del Valle Pumping Plant Load
	Generation	Load			Total Load	SWP Load		
1	21,024	4,996,224	6,902	18,046	4,559,424	4,559,424	12,810	311
2	3,043,296	7,776	8,393	21,861	4,524,288	4,524,288	13,170	301
3	3,525,984	11,520	6,580	18,543	4,488,960	4,488,960	12,700	289
4	3,826,656	1,185,408	7,588	22,533	4,378,560	4,378,560	13,160	287
5	12,096	2,316,096	7,581	20,972	1,012,992	1,012,992	7,970	282
6	0	4,411,584	7,910	20,216	831,168	831,168	8,570	280
7	2,018,016	1,080,576	7,840	20,216	820,416	820,416	9,310	281
8	2,065,536	925,920	8,470	21,301	844,224	844,224	9,200	279
9	2,269,728	0	7,203	20,223	954,432	954,432	8,130	278
10	2,958,336	0	6,370	16,520	4,219,776	4,219,776	12,340	279
11	2,781,216	0	3,703	7,959	4,259,136	4,259,136	12,780	280
12	361,440	0	6,342	16,835	4,240,320	4,240,320	12,515	283
13	85,824	2,903,328	3,710	9,814	4,221,696	4,221,696	13,805	279
14	3,415,968	0	5,138	11,487	4,244,160	4,244,160	13,295	314
15	2,661,120	0	7,469	10,703	4,102,464	4,102,464	12,530	346
16	2,247,552	0	7,399	10,815	4,176,768	4,176,768	11,845	338
17	2,555,712	0	8,071	10,801	4,156,416	4,156,416	12,230	337
18	2,084,544	0	5,628	10,017	3,985,536	3,985,536	11,645	340
19	1,492,992	0	3,087	5,964	4,043,520	4,043,520	12,250	336
20	923,616	0	4,193	10,122	4,012,032	4,012,032	12,260	337
21	2,522,016	0	3,878	8,267	4,070,784	4,070,784	11,875	337
22	1,536,192	0	3,934	7,973	4,108,224	4,108,224	5,190	329
23	1,342,368	0	3,696	7,728	4,080,768	4,080,768	1,305	314
24	1,585,440	0	5,257	9,870	4,075,392	4,075,392	1,305	329
25	1,579,968	288	3,920	7,532	4,085,184	4,085,184	1,245	326
26	565,920	0	3,262	6,965	4,056,576	4,056,576	1,125	271
27	758,304	0	3,031	8,701	4,062,720	4,062,720	1,125	261
28	1,116,576	0	4,256	7,924	3,809,664	3,809,664	1,300	266
29	1,948,896	0	4,277	10,710	3,951,360	3,951,360	1,430	266
30	1,669,536	0	4,074	7,630	4,016,256	4,016,256	1,490	264
31	1,080,288	4,032	4,718	9,520	4,050,624	4,050,624	1,510	271
Total	54,056,160	17,842,752	173,880	397,768	112,443,840	112,443,840	261,415	9,291

**Table 36. San Luis Field Division Energy Data**

(in kWh)

**January 2002**

Date	Dos Amigos Pumping Plant		Gianelli Pumping-Generating Plant			
	Total Load	SWP Load 1/	Total Generation	SWP Generation 1/	Total Load	SWP Load 1/
1	699,984	603,984	0	0	6,326,208	3,302,208
2	420,480	330,480	0	0	5,482,368	4,186,368
3	465,552	375,552	0	0	5,866,560	4,570,560
4	363,024	273,024	0	0	7,127,424	4,391,424
5	487,296	397,296	0	0	4,605,408	2,589,408
6	672,336	648,336	0	0	3,331,872	-4,128
7	544,896	517,896	0	0	2,229,408	-65,592
8	513,072	486,072	0	0	2,636,928	-45,072
9	538,416	511,416	112,608	112,608	2,740,032	58,032
10	673,632	646,632	0	0	5,209,920	3,931,920
11	671,328	644,328	0	0	4,955,904	2,147,904
12	671,616	644,616	0	0	4,609,440	2,350,440
13	903,168	879,168	0	0	8,051,616	4,187,616
14	759,456	732,456	0	0	5,358,528	3,143,528
15	761,760	662,760	0	0	4,558,752	2,299,752
16	733,680	634,680	0	0	5,569,632	3,310,632
17	725,472	572,472	0	0	5,732,928	3,473,928
18	778,464	625,464	0	0	5,128,992	2,869,992
19	870,480	717,480	0	0	5,423,040	3,164,040
20	1,100,160	956,160	0	0	5,871,744	2,007,744
21	936,432	783,432	0	0	4,538,880	3,116,880
22	872,496	719,496	0	0	5,012,352	3,634,352
23	1,052,640	803,640	0	0	5,698,368	3,481,368
24	1,072,080	823,080	0	0	4,512,384	2,295,384
25	1,112,976	830,976	0	0	4,502,304	2,306,304
26	1,004,976	722,976	0	0	4,497,696	3,111,696
27	1,305,360	1,017,360	0	0	7,630,272	3,934,272
28	730,800	448,800	0	0	3,796,992	2,410,992
29	868,896	586,896	0	0	5,623,488	3,592,488
30	826,416	544,416	0	0	3,310,560	1,924,560
31	786,528	504,528	0	0	4,582,944	3,196,944
Total	23,923,872	19,645,872	112,608	112,608	154,522,944	84,875,944

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

**Table 37. San Joaquin Field Division Pumping Plant Energy Load Data**

(in kWh)

**January 2002**

Date	Coastal Branch					California Aqueduct			
	Las Perillas	Badger Hill	Devils Den	Bluestone	Polonio	Buena Vista	Teerink	Chrisman	Edmonston
1	5,016	11,672	40,968	38,340	41,796	1,274,112	1,388,088	3,182,976	11,864,880
2	2,664	7,328	21,852	20,664	24,030	557,352	682,272	1,540,224	5,659,200
3	2,624	5,320	30,096	29,124	30,600	701,280	772,344	1,713,888	6,093,360
4	6,188	14,496	34,614	32,868	35,604	611,496	705,600	1,597,536	5,973,120
5	1,494	2,864	20,952	20,340	21,834	749,880	800,928	1,825,344	6,695,280
6	3,888	8,440	30,960	28,872	31,338	1,065,024	1,209,240	2,745,792	10,200,960
7	2,980	6,072	20,664	18,990	11,124	653,760	737,424	1,655,424	6,016,320
8	3,778	8,928	27,684	27,072	39,168	684,072	749,880	1,724,256	6,318,000
9	5,012	11,496	24,696	23,670	25,956	660,672	751,968	1,705,248	6,325,200
10	4,188	9,760	22,968	22,194	23,130	606,528	674,784	1,541,952	5,587,200
11	6,046	14,000	27,990	26,712	29,016	732,168	789,408	1,804,896	6,666,480
12	5,334	13,936	22,122	20,826	22,500	784,512	916,200	2,074,752	7,655,760
13	6,014	13,920	24,228	22,788	24,840	1,081,008	1,206,648	2,781,216	10,193,040
14	6,444	16,672	23,328	22,842	24,984	694,800	788,256	1,806,912	6,634,800
15	9,474	23,264	35,982	34,308	36,504	720,144	800,928	1,819,296	6,570,000
16	15,790	40,976	27,288	25,938	27,576	727,560	759,816	1,722,528	6,332,400
17	16,456	43,232	31,140	30,168	32,166	805,104	834,624	1,888,992	6,935,760
18	18,544	50,864	34,326	32,436	35,028	722,088	777,960	1,728,864	6,569,280
19	16,046	44,952	39,438	37,278	39,690	737,064	845,352	1,942,560	7,012,800
20	4,468	10,072	22,086	21,258	22,644	1,003,176	1,110,456	2,539,584	9,288,000
21	10,974	28,792	29,898	28,368	30,780	720,792	820,296	1,859,904	6,932,880
22	20,242	51,688	36,396	35,082	37,368	788,256	839,520	1,914,912	6,937,200
23	27,682	78,568	64,854	61,866	63,162	761,328	839,592	1,877,760	6,619,680
24	21,944	58,936	59,562	57,834	59,940	794,736	858,168	1,936,224	7,206,480
25	25,434	63,968	59,490	56,592	59,472	766,728	856,152	1,913,472	7,176,240
26	27,870	74,440	60,948	58,716	61,542	940,824	975,096	2,162,016	7,745,040
27	18,992	50,400	59,922	56,934	60,444	1,049,040	1,200,600	2,740,896	10,174,320
28	15,442	42,064	46,962	44,316	47,682	691,056	797,544	1,780,704	6,556,320
29	20,874	55,672	59,940	57,636	60,210	701,640	796,896	1,816,704	6,710,400
30	15,602	40,480	58,302	55,476	58,086	641,304	710,928	1,572,480	5,659,920
31	13,842	36,104	51,534	49,428	51,552	666,576	719,352	1,624,896	5,905,440
Total	361,346	939,376	1,151,190	1,098,936	1,169,766	24,094,080	26,716,320	60,542,208	222,215,760

**Table 38. Southern Field Division Energy Data**

(in kWh)

**January 2002**

Date	West Branch			East Branch			
	Oso Pumping Plant Load	Warne Powerplant Generation	Castaic Powerplant SWP Generation	Alamo Powerplant Generation	Pearblossom Pumping Plant Load	Devil Canyon Powerplant Generation	Mojave Siphon Powerplant Generation
1	682,864	1,024,992	1,560,000	321,972	1,652,208	1,566,336	193,956
2	301,280	1,210,968	1,560,000	167,384	975,852	2,042,688	99,225
3	295,232	810,072	960,000	192,472	1,026,384	2,546,976	160,209
4	310,464	717,480	960,000	181,860	986,376	2,537,184	125,727
5	464,352	829,728	960,000	148,708	840,072	2,539,680	109,221
6	750,512	1,145,232	960,000	201,908	994,836	2,804,736	95,592
7	233,632	673,488	1,080,000	214,228	1,149,144	2,894,400	130,200
8	222,824	658,944	1,080,000	232,232	1,350,612	2,878,176	166,488
9	236,936	542,376	1,080,000	230,580	1,158,048	2,503,776	154,035
10	147,672	616,968	1,080,000	220,920	1,139,496	2,489,280	126,063
11	291,592	652,680	1,080,000	230,580	1,227,660	2,641,344	136,080
12	324,016	713,952	1,080,000	266,924	1,366,284	2,395,680	164,115
13	390,040	834,192	1,080,000	363,972	2,029,452	2,503,968	255,108
14	271,712	674,280	1,080,000	235,676	1,222,704	2,672,160	140,511
15	225,120	687,456	1,080,000	243,040	1,237,044	2,564,928	172,809
16	160,832	446,328	1,080,000	257,516	1,405,560	2,630,976	165,522
17	203,000	623,160	1,080,000	278,740	1,384,452	2,619,552	145,215
18	211,624	396,576	1,080,000	250,740	1,451,472	2,666,976	163,107
19	353,976	598,824	1,080,000	214,844	1,354,836	2,521,152	131,859
20	409,080	641,880	1,080,000	316,148	1,619,208	2,517,312	205,989
21	307,664	672,552	1,080,000	232,988	1,222,848	2,453,568	175,161
22	300,328	692,136	1,080,000	158,648	1,262,016	2,530,176	153,657
23	285,544	669,384	1,080,000	218,120	1,190,868	2,474,688	131,985
24	314,832	691,848	1,080,000	243,908	1,275,228	2,373,408	153,132
25	367,528	704,304	1,080,000	217,924	1,102,176	2,341,824	117,348
26	426,832	739,656	1,080,000	225,456	1,114,116	2,173,056	167,622
27	388,752	746,280	1,080,000	367,724	1,950,300	2,147,328	200,361
28	286,608	767,880	1,080,000	218,820	1,146,276	2,306,592	134,736
29	315,616	758,808	1,080,000	213,304	1,246,716	2,292,384	167,580
30	326,256	678,600	1,080,000	155,848	861,588	2,093,280	91,959
31	255,248	713,520	1,080,000	201,404	1,020,432	2,280,576	139,209
Total	10,061,968	22,334,544	33,960,000	7,224,588	38,964,264	76,004,160	4,673,781